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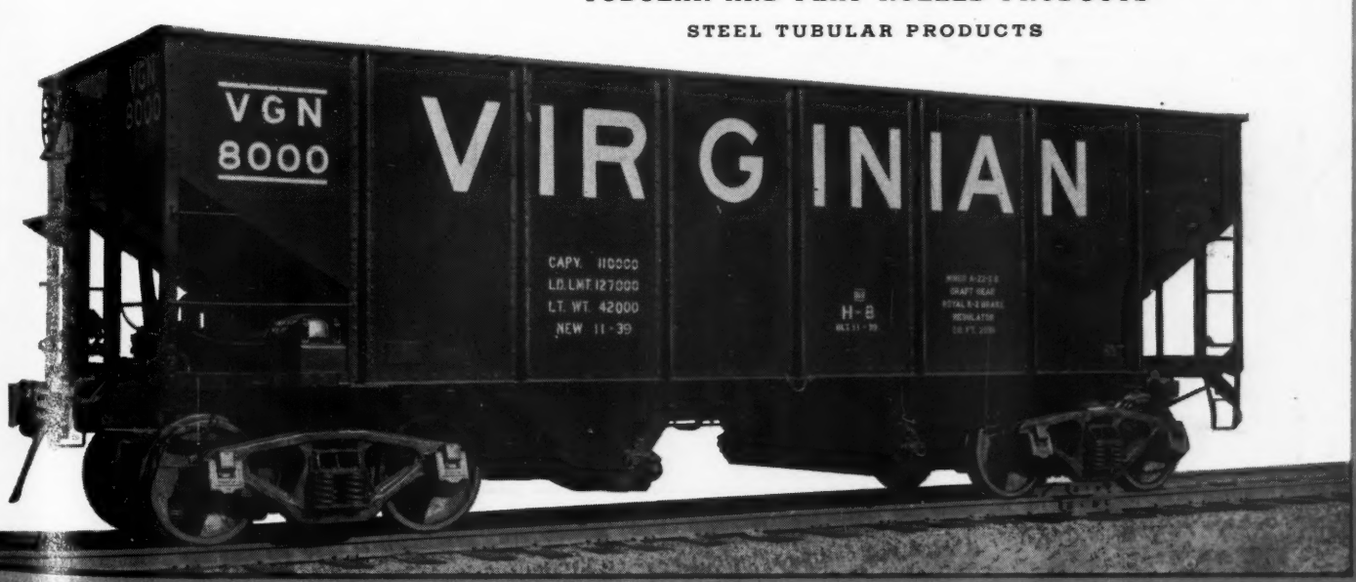

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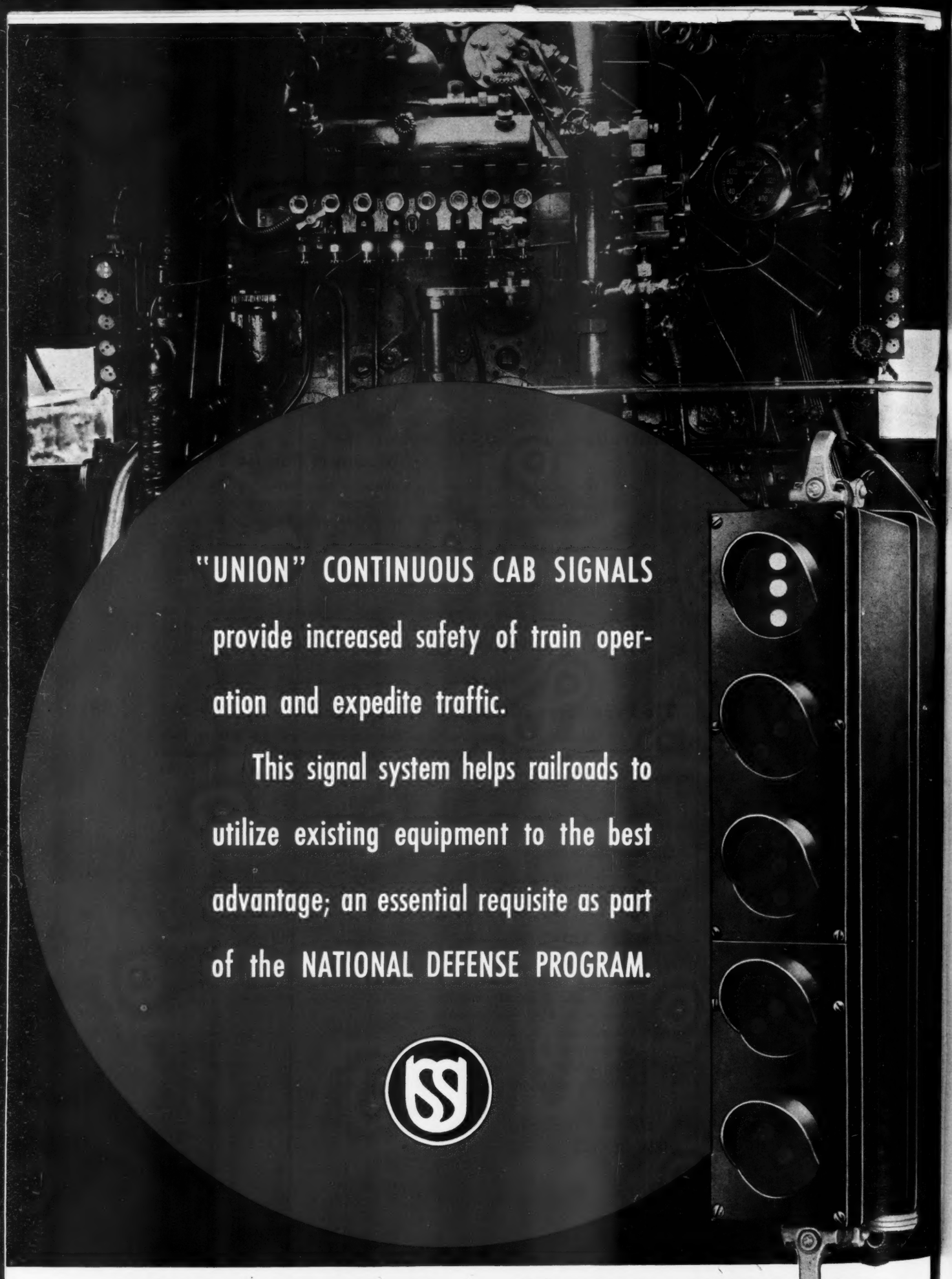

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RAILWAY AGE

National Defense — Railroads and Their Employees

The railways are being confronted by the labor unions with numerous demands for changes in working conditions and wages, all tending greatly to increase the cost of operation. The most portentous is the demand that the five transportation brotherhoods have announced they will make for a 30 per cent advance in wages. The heads of all other railway labor unions have begun making maneuvers indicating that they also will soon seek advances. Those familiar with the political relations between the leaders of the twenty-one unions can have little doubt that the others will seek advances as large as those that the transportation brotherhoods have announced that they will seek.

It Takes Earnings to Buy New Rolling Stock

Consider the position in which this puts railway managements. They are being called upon to handle a greatly increased traffic largely due to the defense program. They are being criticised by persons in high places in Washington upon the ground that they may have a shortage of equipment, because, owing to inadequate net earnings during the depression years, they did not buy enough of it. Their net earnings always have determined the amount of expenditure they have and could make for equipment and materials. They have placed large orders for equipment within the last year and have announced they will place sufficiently large additional orders to increase by 120,000 in 1942, and by an additional 150,000 in 1943, the number of freight cars they will have this year. Without a large increase in their net earnings they will have neither the credit nor the net earnings to do the buying of equipment and materials to which they have committed themselves.

Their net earnings (net operating income) in 1940 were 682 million dollars—the largest since 1930, but about 320 million dollars less than the average amount earned annually in the decade ending with 1930. After fixed charges they had left, in 1940, 191 million dollars "net income" available for dividends. The total wages paid by them last year to the transportation employees were 568 million dollars. An increase of 30 per cent in that would be 170 million dollars. The amount paid to all employees last year was 1,964 million dollars. An increase of 30 per cent in that would be 589 million dollars. Thus a 30 per cent advance in wages of all employees would be equivalent to 86 per cent of the net earnings that the railways actually made last year —and over three times as large as their "net income" after fixed charges.

Wage Rise Would Reduce RRs to Poverty

But, it may be said, the railways are going much better now than last year, and that is true. They made net earnings in the first quarter of 1941 at an annual rate of about a billion dollars. But they are employing more men and their payroll is running larger than last year; and doubtless, even without any advances in wages, it will continue to increase. On the most conservative estimate an advance of 30 per cent in all wages on the basis of the present prospective payroll this year, would amount to 650 million dollars. This—other things being equal—would reduce net earnings to an annual basis below 400 million dollars—less than in any years of the depression, excepting 1932 and 1938.

It may be said that the labor leaders don't expect to get any such increase. Well, why ask for it, then? They would take it all if they could get it, wouldn't they? The obviously correct answer to which shows that if the other unions follow the example set by the transportation brotherhoods they will, combined, make demands upon the railroad industry which, if granted, would utterly bankrupt the industry and utterly destroy its buying power, when the industry is making herculean efforts to handle the present rapidly increasing commercial and defense traffic of the nation and to provide essential means of coping with the prospective large future increase in this traffic.

The labor union leaders may reply, as they have in the past, that it is not their problem, but that of railway managements to get the earnings, by advances in rates, or otherwise, necessary to meet the industry's payroll, however large it may become. This brings us face to face with the fact that the railroad industry is no longer able to pass its increased costs along to the public in advanced rates as it formerly was—that it is subject to outside competition which puts a ceiling on the rates it can get. Then there is also to be considered the temporary nature of the economic conditions existing in 1941 and the situation with which the railways will be confronted after the present huge spending for defense stops. Experience shows it is much easier to

make advances in wages than to secure reductions in them. If they grant advances—any advances at all—based on present temporary conditions, what will be their situation when these conditions cease to exist?

High RR Costs a Cause of Job Loss

The train and engine service unions seem to have an imperfect understanding of the nature of competition in the transportation industry. They do not appear to realize that railroad traffic and employment can be injured fully as much by abnormally high costs of railroad service as they can be by an increase in the subsidies to rival agencies of transportation. Competition is a two-edged sword. One edge is the subsidies enjoyed by socialized transportation (highways and waterways). The other edge is rising costs of railroad service. Either edge will cut railroad traffic and employment as deeply as the other. The unions are fully awake to the competitive dangers which face the railroads from the St. Lawrence Seaway project. For instance, in an editorial in the Locomotive Engineers Journal for April, 1940, it is stated:

"It [the Seaway] would create a vicious wave of unemployment and lowering of standards among numerous other businesses and their many employees dependent upon railroad and coal industries for their livelihood. Inasmuch as the Railroad Retirement Act is designed to be self-sustaining, being supported by payments of railroad employees and employers in equal amounts, it is definitely geared to the welfare of the railroads. Its stability is bound to be affected to the extent that such employees and employers make payments into the fund. Laying off of a large number of railroad employees would decrease the amount of revenue received for the Retirement Fund to the extent of twice the amount regularly paid to such by the railroad employees who would be affected."

Whether the unions are as alert to the other dangers which threaten post-war employment on the railroads, we do not know. However, these other threats are just as serious as the St. Lawrence—possibly even more so. Taken together, they constitute a formidable menace indeed. Some of the more important of these threats are the following:

1. Other canals—such as the Florida Ship Canal and the Tombigbee river—which are being put forward with the same "national defense" camouflage as the St. Lawrence Seaway.
2. The artificial stimulation being given ship construction by the nation's defense effort—all of which shipping at the war's end will be seeking coastwise and intercoastal cargoes at cut-throat rates (which cannot be prevented by rate regulation, because most of these vessels—in all probability—will be operated as contract or private carriers).
3. The plan upon which New Deal bureaucrats are working for a vast system of toll-free "superhighways"—to be embarked upon as a "make-work" project as soon as the military danger to the country is ended.
4. The plans being energetically fostered for the government to continue the vast wartime aviation industry in production by shifting its output to subsidized commercial airplanes—with the proposal frequently made that every hamlet be provided with daily scheduled plane service and that all first class mail be diverted from the railroads to airplanes.

These are the definite and tangible clouds which are accumulating on the horizon of railroad traffic and employment—with the certainty that some, and perhaps all, of them will break as soon the defense boom in production ceases. If the railroads and their employees are to withstand this onslaught, it is as certain as 2 plus 2 equals 4 that they cannot at that time carry the added handicap of largely increased wages.

Exclusively for the Supposed Benefit of "Old Heads"

The demand for a 30 per cent wage increase looks like an "old head" measure. In the sharp decline in traffic which occurred in the first half of 1938—railroad employment fell to 905,573 in May (from 1,153,713 in May, 1937). That is, 248,140 railroad employees lost their jobs in that period but (because of the wage increase in the fall of 1937) **those whose seniority enabled them to stay on the payroll were paid almost $10 more in May, 1938, than in May, 1937.**

The slump which occurred in 1938 was small compared to that which may be expected when the necessity for the current defense production ceases—and so the decline which is threatened in employment will doubtless be much more severe. Figures published in *Railway Age* on many occasions in recent years demonstrate that total wages paid to employees—regardless of the number of persons employed—tend to equal about 47 per cent of gross railway revenues. That is to say, the higher the wage paid to the individual, the fewer the individuals there are who are employed. Of the 248,000 employees who lost their jobs in 1938—a considerable number doubtless would have held on to their positions, had it not been for the wage increase in 1937. Moreover, it is also a fact that—in times of severe depression in earnings—transportation employees do not lose their jobs to the same extent as maintenance employees.

The proposal for a 30 per cent increase in the wages of train and engine service employees thus would make certain: (1) a maximum loss of jobs by younger train and engine service employees when the present boom subsides, (2) a disproportionate loss of jobs by maintenance employees—older employees as well as the younger, (3) the endangering of the whole future of all railroad employment in the face of competition which seems about to be the recipient of largely increased subsidies, (4) the endangering of the soundness of the railroad pension fund (for reasons made clear in the editorial from the Locomotive Engineers Journal, quoted above). While reasons (1), (2) and (3) may possibly not cause much concern to "old head" enginemen and trainmen—reason (4) certainly ought to do so. A pay increase of these proportions would be, in short, just plain suicide for both the railroads and all their employees—including those who, at first glance, might seem to benefit from it.

A Suicide Has No Right to Involve Others

While it might be argued with some plausibility that a free American citizen ought to have the right to commit economic suicide if he so desires—the unfortunate fact is that this suicidal venture involves more people

than just those making the proposal. There are, of course, the junior railway employees—whose voices do not seem to count for much in the counsels of the labor organizations. There are also the maintenance employees—whose services can always be largely deferred in times of poor business. It is a fact too that, when shops close down, maintenance employees of even long seniority may suffer extended periods on payless furlough. This is not the case in train and engine service, where "spread the work" policies have made very little headway, and where the "old heads" high up on the seniority list get their comfortable wages regardless of what happens to all other interests in the railway industry.

While it may be heresy to mention it, there are also railway security holders to be considered. It is not from a standpoint of justice alone that such persons require some consideration—but also from that of expediency. The owners of railway property in the past decade have earned a return on their investment of only about 2 per cent on their property. Even now, with largely increased temporary earnings arising from the boom in defense traffic, these earnings have not yet attained a modest 5 per cent. Railways cannot be kept modern to meet the competition of modern highways and modern waterways and modern airplanes—unless a continuous supply of new capital flows into the industry; and experience of the past decade shows that 2 per cent is not a sufficient return to assure such a supply of capital.

Alleged "Soaring" Living Costs Are Lower Than in '37

The wage increase is justified by the union leaders upon an alleged increase in the cost of living. The actual advance in the cost of living has been only 2.8 per cent since the beginning of the war in Europe. The cost of living in April, 1941, was almost 2 per cent less than it was in 1937 when railroad employees received their most recent increase in wages. Going back to 1929—there is not a class of railroad employees fortunate enough to have jobs, which is not far better off, both in dollars and in purchasing power, than it was in 1929. Measured in dollars, the annual wage of railway employees in 1940 was almost 10 per cent greater than 1929. Measured in purchasing power, the average wage was 26 per cent larger in 1940 than in 1929. Meantime, the authorities are calling upon all classes of the people to make sacrifices for the national defense. What kind of "sacrifice" is it to demand an increase of 30 per cent in wages which are already materially higher both in dollars and in purchasing power than they were at the height of prosperity in 1929? We do not for a moment believe that the railway union leaders who have made this extortionate demand on the railway industry give a true measure of the patriotism and loyalty (to their country as well as their industry) of the rank and file of railway employees; or that, given all the facts, the employees would support this demand made in their behalf.

Equally important with the above considerations bearing on the propriety of this wage increase demand is the fact that the employees who are asking for it are already the highest paid of any American workingmen. There may be some unionized crafts here and there which receive more in basic hourly wages than, for instance, the $2.10 per hour average (without overtime) paid to railway passenger engineers—but such employees' work is usually seasonal and independable. But the "old head" railway man in train or engine service not only enjoys top wages. He is also as secure in his job as any man very well can be; and his old age is provided for by a liberal pension plan.

Of primary relevancy to the propriety of this demand for wage increases by top-pay railroad employees is the fact that these men are the principal beneficiaries of the aptly-named "featherbed" rules and the so-called "dual basis of pay." These "featherbed" rules, as every railroad man knows, have degenerated into a plain racket. By these rules, supernumerary employees are placed in cabooses, in engine cabs and on the expensively-upholstered seats of passenger trains—where they perform no useful service. Meantime, the enforced employment of these useless train-riders denies jobs to men who would be willing to give a day's work for their wages; and who, by doing useful work, might pick up a carload of freight here and there from railroad competitors—and hence make the jobs of all railroad employees more secure. The intricacy of these "featherbed" rules has surpassed the analytical intelligence of the college professors and country judges hired to interpret them by the National Railroad Adjustment Board, with the effect that millions of dollars of scarce railroad cash have been handed out to "schedule lawyers" among railway employees—with an inevitable disintegrating effect on employee morale. (For what is more destructive to morale than to see the hard-working penalized that the non-working may draw thousands of dollars in unearned "back pay"?)

How the "Dual Basis" Favors Train Employees

The "dual basis" of pay has likewise worked out to enable engine and train service employees vastly to increase their hourly earnings and to shorten their weekly hours—without any formal increase in wage rates having been granted to them. For instance, while there was no formal increase in basic wages between 1929 and the fall of 1937, the average hourly compensation of passenger engineers in July, 1937, was 12 per cent greater than in July, 1929, merely by the increase in the average speed of trains. The accompanying table gives further striking evidence of this fact. Time was—not so long ago either—when road and yard services were not so far apart in hourly pay; and when a local freight train and engine crew actually earned more per hour than train and engine employees in through service. But look at the difference now. A through freight engineer in February, 1941, averaged $1.51 per hour, straight time—while a local engineer drew only

$1.24 and a yard engineer only $1.04. Similar discrepancies will be noted between other yard and local employees, on the one hand, and through freight and passenger men on the other.

The reason for this increasing spread between employees who are paid on a mileage basis, and those paid by the hour, is that **the increase which has occurred in railroad efficiency in recent years has largely taken the form of increased train speeds.** These increased speeds are only to a minor degree the product of greater effort or skill on the part of the men who operate the trains. They are the joint product of greater skill in railway management and in improved track and equipment—which latter are the contribution of the much-despised railway security-holders; and the whole mass of railway employees have shared to some extent in producing these higher speeds. But, of all the participants in this improvement in railroad service, only the train and engine employees in fast through service cash in immediately and consistently, month after month. It is no derogation of the excellent service of these employees to draw attention to this fact—we never knew one yet who believed that his services alone are responsible for the greater speed with which he gets over the road, now as compared with formerly.

Not just in the interests of railroad owners (though a little consideration of them, for a change, would be appropriate), therefore, it is crystal clear that railroad management has a solemn obligation to resist this demand for a wage increase to the utmost. If, later on, it should develop that substantial increases in the cost of living are occurring which might threaten the standards enjoyed by railroad employees—say—in 1929, some consideration might properly then be given to a "cost-of-living bonus" (which would come down as surely as it rises) in the case of those employees who work largely or entirely on an hourly basis—but, obviously, even that provision is not justified in the case of employees whose hourly wages have been advancing automatically as train speeds have increased.

Short Week Not in National Interest

Not only that, but neither the railroads nor the nation—in such a time of national emergency—can afford to have men around drawing $60 and more per week and working less than 40 hours for such pay. If the national need is as great as we are told that it is (which is doubtless true), then there isn't any room for abnormally short hours for anybody. Railroad managements—quite above and beyond their obvious duty to railway owners—owe it to their country and to the future of every man who hopes to have a post-war job on the railroads, to demand that the "featherbed rules" be drastically curtailed, or abolished altogether; that the "dual basis" of pay be eliminated; and that the generous schedules of hourly wages (Cols. 7, 8 and 9 in the accompanying table) be substituted in its stead.

It must not be forgotten that these employees received a generous increase in their wage rates in 1937, and that this increase was not rescinded in 1938, when railroad earnings fell to an all-time low. If 1938 railway losses were no adequate excuse for a railway wage reduction, how can the present temporary (and very modest) railway net earnings possibly constitute a justification for a wage increase? It will be remembered also that the railways accepted the recommendation of the President's "emergency board" adverse to the wage reduction in 1938, in part because of the implied promise that the railway unions were going to assist in

The Wages and Hours of Labor of Train and Engine Service Employees in February, 1941

	(1) No. Working at Middle of Month	(2) Total Straight Time Hrs. Actually Worked	(3) Compensation $ for Straight Time	(4) Avg. Straight Time Earnings $ Per Hr. (Col. 3 ÷ Col. 2)	(5) Avg. Weekly Hrs. of Straight Time Per Employee ((Col. 2 ÷ Col. 1) / 4)	(6) Avg. Weekly Earnings $ Per Fully Employed Man Not incl. Overtime ((Col. 3 ÷ Col. 1) / 4)	(7) Minimum Daily Wages East	(8) Minimum Daily Wages West	(9) Minimum Daily Wages Southeast
Passenger Conductors	6,920	1,012,010	1,707,163	1.69	36.6	61.67	7.64	7.58	7.64
Asst. Passenger Conductors	1,164	156,238	197,238	1.26	33.6	42.35	6.35	6.30	6.35
Freight Conductors (Through)	10,248	1,641,067	2,124,458	1.29	40.0	51.82	7.06	7.00	7.06
Freight Conductors (Local)	6,515	1,390,020	1,476,905	1.06	53.4	56.67	7.62	7.55	7.62
Passenger Baggagemen	3,917	570,070	732,198	1.28	36.4	46.73	5.66	5.62	5.66
Passenger Brakemen	9,166	1,220,192	1,562,662	1.28	33.3	42.60	5.49	5.45	5.49
Freight Brakemen (Through)	26,262	3,595,458	3,758,728	1.05	34.2	35.78	5.64	5.59	5.64
Freight Brakemen (Local)	15,518	3,010,210	2,573,245	.85	48.5	41.45	6.07	6.02	6.07
Yard Conductors	15,935	3,266,722	3,226,236	.99	51.3	50.63	7.58	7.58	7.58
Yard Brakemen	41,302	7,308,966	6,703,960	.92	44.3	40.57	7.06	7.06	7.06
Passenger Engineers	8,794	1,114,347	2,339,381	2.10	31.7	66.50	7.49	7.43	7.43
Freight Engineers (Through)	14,366	2,231,559	3,373,585	1.51	38.8	58.70	8.72	8.64	8.64
Freight Engineers (Local)	6,889	1,437,959	1,777,755	1.24	52.1	64.47	9.24	9.16	9.16
Yard Engineers	15,546	3,026,926	3,144,937	1.04	48.7	50.85	8.01	7.94	7.94
Passenger Firemen	7,987	948,302	1,626,995	1.72	29.7	50.93	5.86	5.78	5.83
Freight Firemen (Through)	16,366	2,225,657	2,607,038	1.17	34.0	39.83	6.76	6.67	6.72
Freight Firemen (Local)	7,271	1,404,411	1,330,018	.95	48.3	45.73	7.16	7.07	7.12
Yard Firemen	16,407	3,000,995	2,459,315	.82	45.7	37.48	6.37	6.31	6.31

Figures on Locomotive Wages in Columns 7, 8 and 9 are for Locomotives Weighing 250,000 lb. to 300,000 lb. on Drivers. Wages on Larger Engines Are Greater, Those on Smaller Engines Are Less.

The Minimum Daily Wage Rates Shown in Columns 7, 8 and 9 Represent Compensation for 5 Hours of Work or 100 Miles Run in Passenger Engine Service; 7½ Hours of Work or 150 Miles Run in Passenger Train Service; 8 Hours of Work or 100 Miles Run in Both Road Engine and Train Service; and 8 Hours in Yard Service. It is not These Figures, but Those in Column 4, Which Truly Reflect Actual Wages Paid to Transportation Employees (Excluding Overtime).

Data in Cols. 1, 2 and 3 Are Taken from I. C. C. Wage Statistics.

securing legislation helpful to the railroads. Some legislation has since been passed, but nobody in his senses would say the "emergency board" was right in anticipating that the benefits of the railways from it would equal the 15 per cent reduction of wages which the "emergency board" ruled against.

The railways are financing and want to finance from their own earnings all the purchases of equipment and materials they are making to handle defense traffic. Railroad transportation for national defense is not costing the government one cent in capital outlays, and it ought not to. With present net earnings the railways would be able to finance, without federal aid, the expenditures necessary to carry efficiently the traffic arising out of the defense effort. If this wage increase were granted and spread to all railroad employees, railway net operating income would be fatally reduced; and henceforward the railways' defense effort would have to be financed out of the federal treasury.

In all the history of the railroads there has never been a demand for a wage increase so utterly devoid of merit as this one.

Time Now for Transport Economy

The ability of the railroads to convert a large part of added gross revenue into net railway operating income is demonstrated by a comparison of operating results of Class I carriers for the first quarter of 1941 with the similar period for 1939. The improvement in business during this period resulted in an increase of only 16 per cent in operating expense. But this improvement increased total revenue 28 per cent; net operating revenue 70 per cent; operating income 90 per cent and net railway operating income 135 per cent. Thus an increase of 16 per cent in operating expense is multiplied into 8½ times that percentage amount of increase in net railway income.

Similar results do not obtain with respect to motor carriers. For example, the latest operating results of Class I motor carriers for the United States—9 months ending September 30, 1940, compared with a similar period in 1939—show that total revenues, total expenses and net revenues increased in almost direct ratio.

An analysis of these figures also shows that—notwithstanding the so-called stabilization of truck rates which began in 1937, followed by an increase of between 5 and 10 per cent in the rate level in 1938—this so-called stabilization and increase began to lose its effect in average truck mile revenues in the first quarter of 1939 and continued downward through the third quarter of 1940. The same trend is found in operating costs per truck mile.

It is only because of the downward trend in operating costs that the trucks have been able to preserve their net during this period. When we consider that the tendency of motor carrier rate levels has been upward instead of downward during this period, it seems apparent that the net result of increasing the general freight rate level in 1938 was to enable the trucks to tap a still lower strata of railroad traffic on a profitable basis.

Truck traffic is continuing to increase at a greater ratio than railroad traffic. For example, truck traffic for March, 1941, was 36 per cent above the 1940 level while railroad traffic was up only 22 per cent—although most of the heavy commodities of which defense traffic consists are moving by rail.

It should be remembered that the railroads are called upon to supply the stand-by equipment necessary to carry the peak load of traffic and to absorb all of the shock of the over-flow because the trucks provide rolling stock only as they choose to extend their operations—a relatively small investment which is fully depreciated in three or four years.

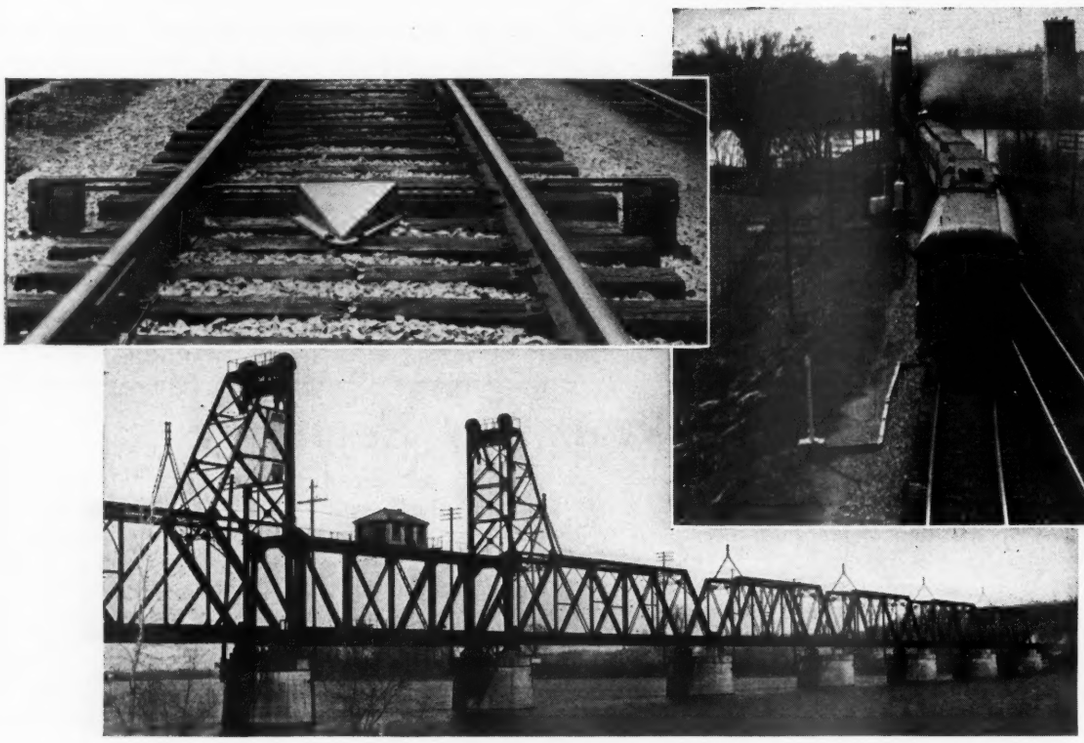
By contrast the railroads must continue to maintain their additional stand-by equipment to absorb all the peaks and stand all the shocks, in an unusual time like the present they are providing added equipment, which may never be needed again, that must be depreciated over a period of 20 years or more. It seems apparent, with this great unequal burden on the railroads, that the rate structure should not also be used as a vehicle to enable the trucks to continue to expand far beyond their sound economic radius as they have been continuing to do since the enactment of the Motor Carrier Act of 1935. It is in the interest of defense preparation to curtail and contract this unnecessary duplication in transportation facilities because:

1. It represents an unnecessary duplication of effort.

2. It is utilizing industrial capacity in the manufacture of trucks that are being used in this continuously growing unsound radius of truck operation. This capacity had better be used for defense.

It seems obvious from all this that it is improper to prohibit the railroads from handling any traffic which returns less than full cost, or to prohibit them from handling any traffic which will improve their net earnings. In fact, it seems clear from the Transportation Act of 1940 that the Commission must now consider the effect of the rates it prescribes on the movement of traffic by the carrier for which the rates are prescribed and is not due to consider their effect upon the traffic of any other carrier of whatever description.

Also, the course railroad management should take seems clear. The truck operating ratio is around 95. Average per ton-mile truck revenues are far above the railroad average. The present unutilized railroad capacity could be utilized economically to handle the large amount of traffic that is now being handled uneconomically by the trucks, and this truck and industrial capacity released to where it is needed. It would not be necessary to revise the entire rate level, but only the rates on truck competitive traffic. Such a change would not cost the railroads more than 2 per cent of their total revenue, but it would cost the trucks much more and require them to contract into their sound economic radius. The small railroad revenue reduction on present traffic would be compensated for many times over by the added traffic which would be recovered at rates considerably higher than the present average level, and all this increase would largely be converted into net.



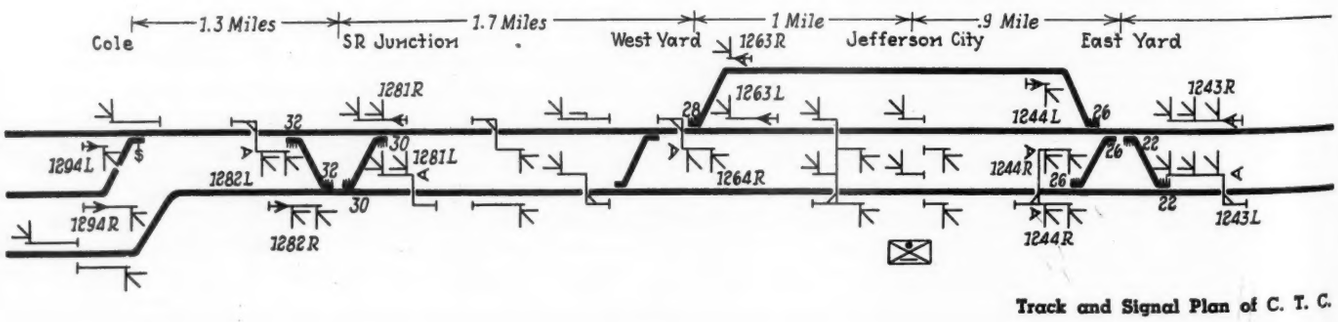
Left — Single-Track Bridge over Osage River. Above—West-Bound Train Approaching Bridges. Upper Left—Drag Detector in Place

Centralized Traffic Control on the Missouri Pacific

Installation at Jefferson City, Mo., including either-direction operation on two tracks, facilitates train movements through junction and intermediate terminal

THE Missouri Pacific has installed centralized traffic control, including power-operated switches and signals for directing train movements, on 12.6 miles of double track between Osage, Mo., and Cole, Mo., on its main line between St. Louis and Kansas City. This main line has two or more tracks for 116.7 miles from St. Louis, Mo., to East Osage on the east side of the Osage river. Beyond this point single track extends for 2,600 ft. across a bridge over the Osage river to Osage, and from there, two main tracks extend 12 miles through Jefferson City to SR Junction. From SR Junction, a low-grade single-track line extends northwest along the Missouri river to Kansas City, Mo., and a second single-track line extends westward through Sedalia, Mo., to Kansas City. Through freight trains and two local passenger trains are operated over the River subdivision, while the remainder of the passenger trains, local freight trains and one eastbound red ball freight are operated over the Sedalia subdivision.

In the previous arrangement, a mechanical interlocking known as MM, located at M. P. 119.1, about 2 miles west of Osage, included two No. 20 crossovers between the two main tracks. The power switches and signals at the two ends of double track at the Osage River bridge



Track and Signal Plan of C. T. C.

were controlled remotely from MM tower. Train movements were directed by signal indication between East Osage and MM, with either-direction running on each track between MM and Osage. Right-hand running, using time-tables and train orders with automatic signal protection, was in effect between MM and Cole Junction. The yard entrance and yard departure switches at Jefferson City were hand-operated.

At Cole Junction, a mechanical interlocking included the east switch of a passing track on the River district and a double-slip crossover layout to route trains between the double track to the east and the two single-track lines to the west. The junction layout was located on a curve, necessitating excessively low train speeds when negotiating the switches and crossovers.

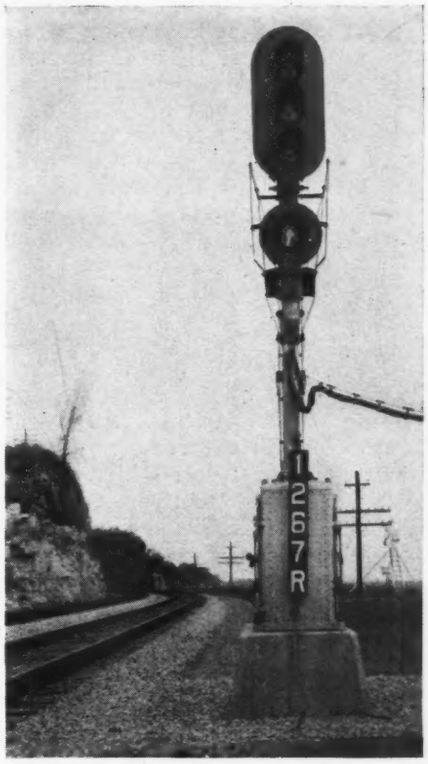
Operating Problems

The daily traffic through this territory includes 12 passenger trains, 2 local freight trains, 8 scheduled freight trains and extra trains as required, thus totaling at least 22 trains daily. Although Jefferson City is a freight district terminal point, the locomotives are run through, but the crews are changed. Rather than running the through freight trains into and out of the yard at Jefferson City, they hold the main tracks. The time required for changing crews and for taking coal and water varies from about 10 min. to 15 min., while if cars are to be taken off and set on, the total time required may reach 20 to 30 min. or more. The movements required to take off or set on cars are handled by switch engines. In order to permit the through freight trains to occupy the main tracks while this work is being done, it was necessary to provide an arrangement whereby trains could be operated in either direction on either main track so that other trains, principally passenger trains, could be routed around standing freight trains.

As the principal source of delays was in the vicinity of Jefferson City rather than at the east end of the territory, the mechanical interlocking formerly at MM, as mentioned previously, was removed, and the two No. 20 crossovers at that location were re-installed at East Yard, just west of MP 124. Likewise at this location, a new turnout was installed between the westward track and the yard lead, thus forming a new yard entrance switch and leaving some of the old yard lead track as a dead-end tail track for switching moves.

At the west end of the territory, in order to get the junction layout off of curves onto straight track, the interlocking and crossovers forming the previous junction at Cole Junction were removed, and two new No. 20 crossovers were installed between the two main tracks at a new location on straight track one mile east of Cole. This new track layout, known as SR, now forms the junction of the two single-track lines from the west with the double track to the east. At Cole, a spring switch mechanism with an oil buffer was installed at the switch at the east end of the passing track on the River subdivision.

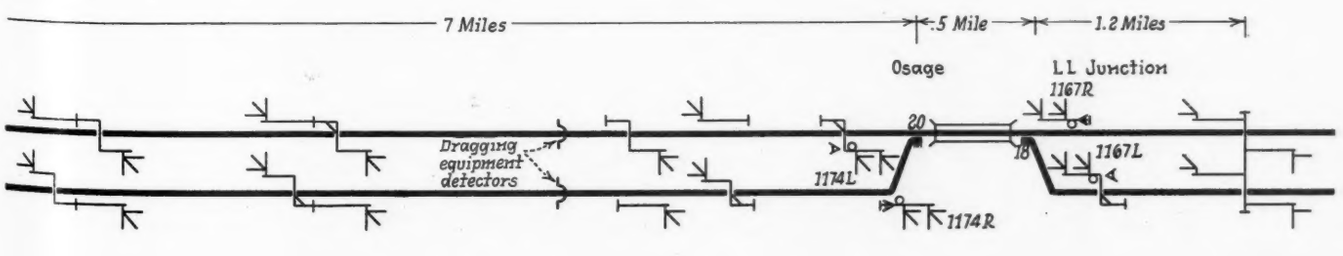
New power switch machines were installed at the two ends of double track on either side of the Osage river, at East Yard, at the east yard entrance and west yard departure switches at Jefferson City, and at SR. These power switch machines, as well as signals at these locations for directing train movements by signal indication in either direction on both main tracks, are all controlled from a new centralized traffic control machine in the station at Jefferson City. As a part of the program, changes and additions were made to the automatic block signaling to provide for either-direction train operation on both main tracks.



Four-Aspect Signal

How the New Facilities Are Used

Thus the new track arrangement includes three locations, Osage, East Yard, and SR, at any one of which the trains can be diverted from one main track to the other. The centralized traffic control and signaling provides for the direction of train movements by signal indication, which supersedes time-table superiority and takes the place of train orders. With these facilities, run-around moves can be made as required. For example, if a westbound through freight train is holding the main



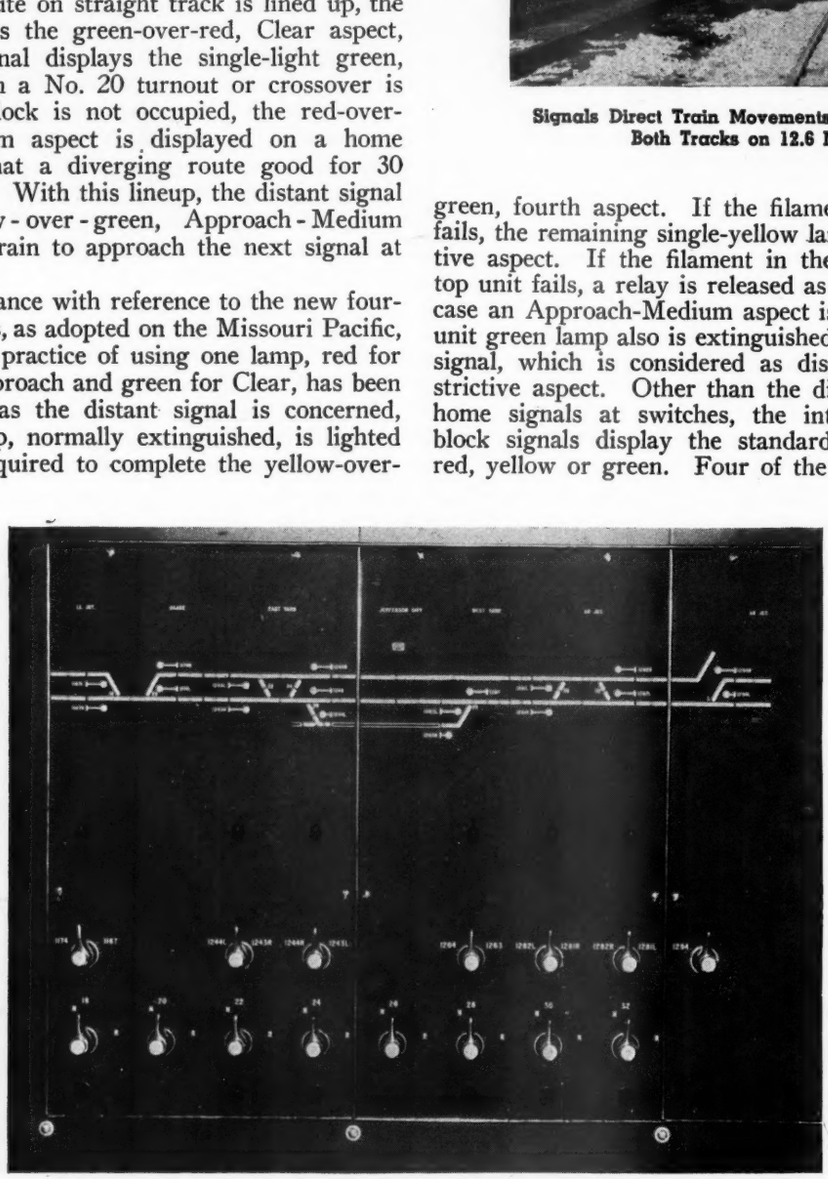
Territory Between Cole and LL Junction

line at Jefferson City, a westbound passenger train on the north track can be diverted to the south track at Osage or at East Yard, and, after making its station stop at Jefferson City, can be diverted to the River subdivision at SR or can continue on the south track to the Sedalia subdivision. If an eastbound through freight train is occupying the south track, an eastbound passenger train from the Sedalia subdivision can be diverted to the north track at SR, and, after making the station stop, can be diverted to the south track at East Yard or it can be run through to Osage on the north main if a second eastbound freight train is occupying the south main between Jefferson City and Osage. Thus the flexibility with which train movements can be made, eliminates train delays and congestion through Jefferson City.

The turnouts and crossovers are No. 20 with 30-ft. points, thus permitting diverging moves at train speeds of 30 m. p. h. In order to direct trains to approach and pass through these turnouts or crossovers at the speeds for which they are designed, extra signal aspects were provided, this being the first installation of this character on the Missouri Pacific. An absolute home signal normally displays the red-over-red, Stop aspect, and the distant signal displays the yellow, Approach aspect. When a through route on straight track is lined up, the home signal displays the green-over-red, Clear aspect, and the distant signal displays the single-light green, Clear aspect. When a No. 20 turnout or crossover is reversed and the block is not occupied, the red-over-green, Clear-Medium aspect is displayed on a home signal, indicating that a diverging route good for 30 m. p. h. is lined up. With this lineup, the distant signal displays the yellow-over-green, Approach-Medium aspect, directing a train to approach the next signal at medium speed.

A point of importance with reference to the new four-aspect distant signals, as adopted on the Missouri Pacific, is that the previous practice of using one lamp, red for Stop, yellow for Approach and green for Clear, has been continued in-so-far as the distant signal is concerned, and the second lamp, normally extinguished, is lighted green only when required to complete the yellow-over-green, fourth aspect. If the filament in the lower unit fails, the remaining single-yellow lamp is a more restrictive aspect. If the filament in the yellow lamp in the top unit fails, a relay is released as a result of which, in case an Approach-Medium aspect is intended, the lower unit green lamp also is extinguished, thus leaving a dark signal, which is considered as displaying its most restrictive aspect. Other than the distant signals for the home signals at switches, the intermediate automatic block signals display the standard single-lamp aspect, red, yellow or green. Four of the automatic block sig-

Signals Direct Train Movements in Either Direction on Both Tracks on 12.6 Miles of Line



The Control Machine at Jefferson City

nals, 1251R, 1251L, 1252R and 1252L, at the east end of the Jefferson City station platform, are of the three-aspect dwarf type. The use of these dwarf signals obviated the necessity for overhead signal bridges and the throwing of tracks to provide clearance for the bridge supports.

The speed limits for passenger trains operated by steam locomotives is 75 m. p. h., and for freight trains 55 m. p. h. The light-weight streamlined "Eagle" trains which are hauled by Diesel-electric locomotives are limited to 90 m. p. h. The speed limit for all trains through Jefferson City station platform limits is 45 m. p. h. All signals are spaced properly to provide adequate braking distances for trains; the minimum spacing, on territory where maximum speeds are permitted, is 8,000 ft.

Dragging Equipment Detectors

The single-track bridge over the Osage river is a vital portion of this division, for if this bridge should be damaged or a train derailed on the bridge or on the approaches, the line would be out of service for an extended period. For this reason, detectors are in service on both tracks in approach to this bridge from each direction, so that if any equipment is dragging, the signals will display aspects to indicate the defective condition, and the train can be stopped before the dragging equipment arrives at a switch or the bridge where a derailment most likely would occur.

As shown in the illustration, each detector location includes brackets mounted on each side of both rails, so arranged that brake beams or other defective equipment which is hanging or dragging below standard clearance, will strike and break one of the brackets. These brackets are made of very brittle cast-iron so that they are easily broken by a sharp blow; even a dragging truck chain will break them. Each bracket is made in the form of a loop, and the four loops of a detector are connected in series in an electrical circuit which includes a battery and a normally-energized relay. If any one of the brackets is broken, the relay is released and signals, which are controlled through the relay, are set to display special aspects.

In consideration of the fact that equipment may be dragging on a car near the rear of a train, the detectors are located a sufficient distance from the bridge so that if one of them is operated by defective equipment on any car, the engineman receiving a change in signal aspects would have adequate time and space to stop before the defective part of the train reaches the switch or the bridge. Freight trains of maximum length include 125 cars, and, therefore, eastward detectors are located 9,505 ft. west of the eastward home signals, and the westward detectors are placed 9,635 ft. east of the westward signal.

Special Detector Signal Aspects

The Missouri Pacific does not approve of a practice which might cause the aspect of a signal to be changed from Clear to Stop in the face of an approaching engineman, for to do so might result in the engineman using the emergency application of the brakes, which, in the case of a freight train, might result in an accident. In order to obviate such a circumstance, the Missouri Pacific uses an additional signal unit and a special aspect to indicate that a dragging-equipment detector has operated. The addition consists of a single lamp unit, similar to that used as half of a highway crossing signal. This unit is mounted below and slightly to the left of the other signal units on the home signal mast. The electric lamp in the special unit is normally extinguished.

If a home signal is displaying the Proceed aspect for an approaching train, and a detector is operated by defective equipment on that train, the aspect of the home signal is changed from "Proceed" to "Restricted Speed," and also the special unit at the lower left is operated to display a flashing red light. This complete aspect indicates to the engineman that no change has been made in the position of the switches and that no conflicting train has fouled the established route, but that the only change is the operation of a dragging-equipment detector. With this knowledge, the engineman brings his train to a stop as quickly as practicable, consistent with safe handling, knowing that the route and length of unoccupied track ahead are available. If the filament in the lamp of the extra unit fails, red lights are displayed in the remaining units.

The major items of signaling equipment for this installation were furnished by the General Railway Signal Company, and the dragging-equipment detectors were furnished by the Western Railroad Supply Company. The construction was handled by the Missouri Pacific signal forces, supervised by L. S. Werthmuller, assistant signal engineer, and R. M. Spillman, signal foreman, under the direction of P. M. Gault, signal engineer.

First Quarter Purchases 353-Million Dollars

PURCHASES totaling $353,006,000 were made for rail transportation in the United States in the first three months of 1941, according to compilations completed by the *Railway Age*. These purchases consisted of $166,349,000 of materials received by Class I railroads from manufacturers, $13,579,000 of new locomotives and cars ordered from equipment builders and $83,078,000 of coal and fuel oil. Total buying for the first quarter fell short of the corresponding buying in the first three months of 1937 by $7,180,000 but was larger by $107,020,000 or 44 per cent than the first quarter total in 1940 and was larger by $155,724,000 or 79 per cent than the corresponding figures in 1939 and was more than double the corresponding purchases in the corresponding period of 1938.

Railway Purchases—Materials, Fuel and Equipment

Three Months	Materials received from mfrs. (000)	Equipment ordered from mfrs. (000)	Total from mfrs. (000)	Fuel (000)	Total including Fuel (000)
1929	$237,397	$150,266	$387,663	$91,703	$479,366
1930	232,690	83,845	316,535	87,310	403,845
1931	141,881	8,343	150,224	66,119	216,343
1932	76,700	1,684	78,384	53,700	132,084
1933	54,764	334	55,098	45,409	100,507
1934	86,214	17,415	103,629	55,447	159,076
1935	81,050	4,066	85,116	67,350	152,466
1936	111,864	13,759	125,623	68,518	194,141
1937	173,736	103,424	277,160	83,026	360,186
1938	89,850	9,537	99,387	62,830	162,217
1939	104,347	22,134	126,481	70,801	197,282
1940	155,263	19,646	174,909	71,077	245,986
1941*	166,349	103,579	269,928	83,078	353,006

* Subject to revision.

Approximately $269,928,000 of materials and equipment, exclusive of fuel, were purchased from manufacturers during the first three months period, which was $95,019,000 more than was purchased in the first three months of 1940, $143,447,000 more than in the first three months of 1939 and $170,541,000 more than in the first quarter of 1938. Materials purchased by private car lines and by railway switching and terminal companies would increase these totals.

Purchases of fuel, rail, crossties and maintenance mate-

rials, while gaining less than orders placed by the railroads for new locomotives and cars, all showed increases in March over February and January and aggregate materials received in March by the Class I railroads were

Railway Purchases—Materials and Fuel*

1940	Fuel (000)	Rail (000)	Cross-ties (000)	Other Material (000)	Total (000)	Total less fuel (000)
January	$24,978	$3,529	$4,128	$45,593	$78,228	$53,250
February	24,219	4,814	3,928	39,939	72,900	48,681
March	21,880	6,043	4,634	42,655	75,212	53,332
3 Mos.	71,077	14,386	12,690	128,187	226,340	155,263
1941						
January	26,319	3,131	3,669	45,581	78,700	52,381
February	26,944	4,744	3,701	43,601	78,990	52,046
March	29,815	4,156	4,081	53,685	91,737	61,922
3 Mos.	83,078	12,031	11,451	142,867	249,427	166,349

* Invoices plus freight.

$16,525,000 greater, or 22 per cent, than in March, 1940, and reflected the largest expenditure for materials in any month since May, 1930, except in the month of March, 1937.

Aggregate inventories of materials and supplies in the hands of Class I railroads on April 1, amounting to $370,509,000 according to present information, showed

Materials in Stock—Class I Railroads

1940	Fuel (000)	Rail, New and S. H. (000)	Cross-ties (000)	Stores Stock (000)	Scrap (000)	Total (000)
Jan. 1	$21,778	$25,552	$51,359	$216,996	$11,551	$327,236
Feb. 1	22,454	28,213	58,187	222,127	11,862	342,843
Mar. 1	23,190	31,546	60,615	230,045	11,576	356,972
Apr. 1	21,016	34,388	64,466	234,899	11,509	366,278
1941						
Jan. 1	24,002	25,985	50,967	223,673	9,818	334,445
Feb. 1	25,294	26,557	61,513	218,599	11,153	343,116
Mar. 1	27,071	28,181	62,375	227,722	10,846	356,195
Apr. 1*	30,512	28,661	66,231	234,288	10,817	370,509

* Subject to revision.

an increase of $14,304,000 over March 1, an increase of $27,393,000 over February 1 but an increase of only $4,231,000 over aggregate inventories on April 1, 1940. Subject to revision, aggregate inventories on April 1 indicated $4,000,000 more rail, $2,000,000 more crossties and $9,000,000 more fuel in stock than on April 1, 1940, but no aggregate increase in the stock of miscellaneous material.

Wants A.A.R. to Pool Equipment Orders

THE co-ordination of orders for locomotives, cars and manufactured products used by railroads to enhance mass production was urged by members of the Railway Business Association at a meeting at Chicago on May 22. The meeting was called to discuss the problems confronting the railway supply industry as a result of the heavy demand for rolling stock which is occurring at a time when defense production is being expanded so greatly.

In reporting upon the present and future, Harry A. Wheeler, president of the Association, emphasized three periods that will require the immediate attention of railroads and manufacturers. The first period, between now and October, he said, is the most urgent because car orders placed for October delivery appear now to exceed the capacity of plants holding these orders to construct them during the intervening months. He explained that it was estimated, on May 12, that carbuilders could construct 13,400 cars between that date and October 1, in addition to the backlog of car orders promised for October delivery, but that since May 12 some railroads have placed orders not anticipated on that date with the result that certain plants now have orders for 4,500 cars more than can be assured by October 1. An effort is being made, he said, to find new production capacity, but difficulties are retarding quick action.

The second period, from October to January, he continued, is also important, for it is necessary in that period to complete the construction of the cars now on order and clear the shops for the third period, 1942, which calls for the construction of many more cars.

During the discussion several members advocated that the present practices whereby individual railroads order what, where and when they please, be supplanted by a plan under which the Association of American Railroads would arrange purchases to facilitate production and make possible a steady flow of materials. Among the specific suggestions were the following:

That the A. A. R. determine the total number of cars of a specific type that will be required by all of the railroads during the year, and allocate the types to plants that are designed to construct that type most efficiently.

That unnecessary variations in specifications that stop production when changing from one order to another be made uniform, and that the practice of altering specifications during manufacture, which also stops production, be eliminated.

That the railroads continue their study of substitute materials and employ substitutes whenever they will aid mass production or prevent delay due to inability to secure products that heretofore have been standard.

That priority requests for materials used by manufacturers in locomotive and car construction be handled by the A. A. R. During the discussion of priorities, it developed that a large number of members were of the opinion that only materials used in manufacturing products used by the railroads should be given priority, and that, in order not to overburden the Office of Production Management with numerous requests, the A. A. R. should make requests for priorities for materials for these manufacturers at the same time that it makes requests for priorities for materials to be used by the railroads. The need of priorities for materials for manufacturers who make products used in locomotives and cars built in railroad shops was also emphasized.

Although the production of locomotives and cars dominated the discussion, the manufacture of other products for railways was given consideration. One problem, which members thought the A. A. R. could control, is the placing of excessive orders for products for quick delivery as a hedge against price advances or scarcity, which orders tie up a plant and prevent it from supplying other customers. As in the discussion of locomotive and car construction, the opinion was expressed that the A. A. R. should encourage the railroads to depart from standard materials and utilize substitutes where advisable.

The paint industry reported that because of the shortage of tung oil and the defense demands for aluminum, cellulose derivatives and other products used in the manufacture of paints, lacquers and varnishes, it has been forced to develop substitutes, and that if the railroads will reconcile themselves to the use of substitutes, satisfactory products can be supplied. Insistence upon the use of products containing aluminum and nickel were also reported to be delaying deliveries.

The Railways and National Defense*

Twenty-three more years of experience in transportation have fitted the railroads to serve the nation more efficiently than in 1918

By L. K. Sillcox

Vice-President, New York Air Brake Company

IN days compact with phenomena, crowded to confusion with immediate problems of existence, it is not easy to recall the period of four decades. Forty years have witnessed vast transformations in our manner of living and in the expanse of our demands. Communication and transportation have achieved standards which the most visionary prophets of two generations ago failed to grasp.

No application of science touches the individual more intimately than these.

Today, we accept all these things with scarcely a thought of the pioneers to whom our generation and all who follow must acknowledge a stupendous debt. We are engaged in reworking our facilities to meet the exigencies of a national and world-wide emergency. When the present struggle has subsided in its race for technical supremacy, nation against nation, it will discover that it has new materials, new processes, and new machines which it may convert to a thousand peacetime uses. War is a primary stimulant to engineering ingenuity.

With all its misery and dislocation of every fine purpose, war is a stupendous price to pay for accelerated technical progress but that progress is the inevitable consequence of war and not its cause.

This Century Marked By Railway Refinements

Forty years ago our nation had just completed construction of the greatest railway mileage and the most inclusive railway system ever attempted. Despite the gradual contraction of subsequent years, it still represents one-third of the world's total. Whereas the dawn of the twentieth century marked the end of headlong railway expansion, it also marked the beginning of refinements and genuine improvement in railway transportation. It marked, too, the genesis of railway competition, born of the internal combustion engine, since grown to rugged maturity in the transcontinental networks of inter-connecting truck lines which haul goods over the highways in near-carload lots. The automotive industry created public insistence upon hard surfaced highways. It sponsored the growth of the oil industry and compensated the railways for traffic diverted by multiplying, a thousand fold, tonnage in petroleum and its derivatives, only to withdraw these benefits with the laying of pipelines. The half-developed internal combustion engine lifted Orville Wright a few feet above the dunes of Kitty Hawk in 1903 to fire the minds of countless men with the possibilities of freedom from physical limitations which bound them to the earth. All this has struck the stigma of monopoly from railway enterprise as a public utility.

The nation's transportation system comprises seven components whereas forty years ago there were but two. Railways and the limited use of inland waters share the field with highways, airways, pipelines, intercoastal shipping through the Panama Canal, and the lightning passage of coal equivalent through the conductors of high voltage power lines. Inland water transportation has expanded broadly through improvement of unnavigable channels.

There is a railway problem but it is the consequence of technical progress for the most part. Its distasteful aspects arise from unjustifiable encouragement of transportation excesses, sponsored indirectly by a public which has failed to search out and evaluate the facts. There are arguments which support another view, but, broadly, the problem is subject to sound reasoning and in but few aspects detachable.

And now in the face of emergency conditions what must we do? Supply lines must be reinforced. The flow of materials must continue without interruption, crossing and recrossing, searching an unpredictable future for the elements which tell the extent of imperative new effort. Authority to supervise the principal channels of traffic has been vested. There are those who judge the railway plant inadequate and so, while commercial airlines are forbidden to expand their services or to replace serviceable equipment, and the motor truck lines have completely escaped administrative suggestion, railways have been urged to enter the market for steel for cars, locomotives, and rails, competing with ships, ordnance and tanks. Railways have been permitted to transport sixty-two per cent of the nation's freight in recent years. They will be expected to move, without confusion or congestion, a larger proportion of a greater volume as all industry is mobilized for a common purpose.

Regulation Enters the Field

The function of transportation remained the responsibility of the individual until railways were mechanized more than one hundred years ago. Common carriers prospered because their services were superior, or cheaper, or both. Prosperity fostered expansion and well considered expansion begot more prosperity. Means were provided for improvement and with improvement came still greater economy. Success unfortunately fostered a sense of false independence which influenced out-

* Abstract of an address presented on the occasion of the fortieth anniversary of the School of Applied Science, Syracuse University, April 5, 1941.

standing men in the railway field. Many questionable practices were instituted culminating in sharp discrimination between shippers as to rates quoted and service favors allowed. The basic principles of democracy revolted and the voice of public opinion was raised in protest, supported by representation in government. Essential regulation was instituted and has since served its purpose well.

A growing nation multiplied its transportation requirements but in its advance presented no new problems to the system of railways which, by the genius of its methods, could add at will to its capacity. With regulation, the national complexion of railways was completely realized.

Subsequently, highways, still later pipelines and airways, became a part of the national system, lacking integration for they were not encircled by the common authority.

The motor truck, pipelines, and the airplane are as definitely essential components in modern transportation as are the railways. Their combined capacity would fulfill all the necessities of many nations less expansive than our own. They have cut deeply into railway revenues, performing services which, by every application of strict economy and every process of rational inquiry, railways are found to be fully competent to accomplish.

Conversely, railways struggle for tonnage and fares which the highway operator, pipeline, or commercial airline can despatch more expeditiously, economically, or with greater convenience to shipper and consignee. Four great airlines even now are organizing to interchange air freight. It is a reasonable development and should be encouraged but coal, oil, ore, sand and gravel will never travel the air lanes. Neither can any prospective competence serve a considerable proportion of the total transportation requirement. Give to the air operators the responsibility for rapid handling of urgent deliveries of commodities within their capacities. Let the motor trucks serve rail heads and add their peculiar flexibility to the personal service of the small lot shipper. Permit pipelines to handle traffic under conditions of regulation paralleling those imposed by public authority upon railways and it will represent a situation of more justifiable competition than at present exists where shipper control or ownership of transport facilities obtains in large measure.

Railways can and should devote their best efforts to unbroken mass movements over long distances. A nation, hastening to equip itself for volume production in the heavy industries and all consumer goods, needs every transportation facility which it can command. Whatever developments may arise in the future, railways will remain for many years the bulwark of our inland transport needs.

Railways Prepared for Emergencies

Neither the railways themselves, nor any service or untested practice they have developed, could be quickly created and perfected. It is well that they are firmly established today, complete in every detail. Even experiences of ten lean years serve them well in a period of pressing demand. Necessity has compelled the maximum practicable use of every component of the railway plant—communication systems, yards and terminals, buildings, tracks, locomotives and cars. Railway personnel is more efficient than ever before. Railway experience is reflected in the basic administration of all transportation enterprise. Railway labor standards and management practices constitute the pattern for airways and highways—poorly achieved by the latter. Railway rate schedules find their parallels in the tariffs filed by their competitors.

Railway safety is the objective of all transport agencies. None has attained nor can attain, the railway record for all-season, all-weather, on-time and fully embracing performance.

It has been stated that railway freight tonnage constitutes 62 per cent of the nation's total. Of the balance, airways carry less than 1 per cent, highways 9 per cent, all inland shipping 17 per cent, and pipelines, too specialized and limited in product capacity to figure largely in the net effort, 12 per cent.

How and to what extent can total railway tonnage be increased to meet unusual demands? Were there to be no sharp increase in military needs for gasoline and oils under the conditions which threaten, curtailing commercial diversion, the expansion of services by air or highway would be limited by necessity for production priorities. There is not a vast store of surplus vehicles which can be pressed into service and used ever more intensively. Locomotives and cars are larger and not only do they move more swiftly, but they are in trains more hours per day.

The total number of freight cars has been diminished in recent years through wholesale retirement but 160,000 new and improved cars have been installed since January, 1939. This, in itself, would mean little, had not the war of twenty years ago shown it to be quite possible, through injudicious planning, to quickly withdraw as many as 200,000 cars from service at one time, loaded in 1917 with anchors for vessels whose keels had not been laid, are frequently cited as typical of administrative blunders. Hog Island also was responsible for 5,000 cars being held out of service at one time, loaded with piling which could not be unloaded.

To meet such situations, a federal railway administration was appointed. Its object was to insure operation despite congestion. It was authorized to specify priorities and install new equipment. Much more effective is the present Transportation Section of the National Defense Advisory Commission. Ralph Budd, with long years of successful experience in the administration of railway problems of the first order, further supported by the full confidence of all the railways whose facilities he may command, is clearly meeting every critical situation before it occurs. This time, cars will not be loaded until provision is assured for discharge of their cargo. They may shuttle with utmost utility between industry's loading and receiving platforms and, if maximum usage of every car is assured, railways possess tremendous capacity, beyond the requirements of any prospective volume.

Our nation supports a vast mechanized army. Much of its mobile equipment is independently powered to move quickly over long distances, transporting its full complement of men and material. This army on the march is, in effect, supplementary to railway transportation. The great cantonments which have so recently sprung up throughout the land provide their own terminal facilities —20- and 40-ton Diesel switchers are being delivered—too small for trunk line railway service but ideally suited where the daily traffic is measured in tens instead of thousands of cars.

The nation's transportation situation in emergency is not acute. Railway responsibility is defined and all-inclusive. We may dare hope that there will spring from this experience that measure of co-ordination and correlation of facilities and endeavor which, upon reasoned review of the record now being written, will bind national transportation into an integrated enterprise for effective service.

Care in Selection of Timber Is First Step in Securing Sound Ties

Tie Producers Meet at Hot Springs, Ark.

Manufacturers and railway users consider problems involved in meeting increasing railway requirements in the face of adverse weather and labor conditions

APPROXIMATELY 90 producers of crossties and railway officers interested in their use met in the twenty-third annual convention of the Railway Tie Association at Hot Springs, Ark., on May 21-22. Differing from the conditions which have confronted this group during their meetings in the last 10 years when producers have been confronted with large stocks resulting from reduced railway purchases, the meeting this year reflected a complete reversal of these conditions, with surplus stocks gone and with demands from railway and government purchasers exceeding production. The program for this meeting gave increased consideration to the problems of the members of this organization as producers, supplemented by addresses by railway men on the outlook in the railway field, with reference especially to its influence on demands for crossties and switch ties.

Leonard Perez, district sales manager of the Wood Preserving Division, Koppers Company, St. Louis, Mo., presided over the convention as president, assisted by Roy M. Edmonds, secretary. Shortly after calling the convention to order, Mr. Perez reviewed the activities of the association during the last year and reported increases in both corporate and associate members. He reported at some length especially on conferences with federal purchasing agencies engaged in providing materials required in the national defense program. By greatly increased efforts, he said, the tie industry has been able to date to meet defense as well as railway requirements for its products. He reported, however, that the association had been advised within the last week that the government defense program already adopted includes the construction of 800 miles of tracks not yet built, which tracks will require 2,400,000 ties. Furthermore, the defense program contemplates the construction of 28 additional camps which, when authorized, will require 1,200 miles of tracks and 3,600,000 more crossties. In other words, government construction activities, authorized and proposed, will require 6,000,000 ties, over and above those needed by the railways.

The program for the convention included addresses by P. J. Watson, Jr., president of the Terminal Railroad Association of St. Louis; by C. D. Turley, chief tie inspector of the Illinois Central, on Crosstie Specifications; by William Somerville, vice-president, Potosi Tie & Lumber Company, Dallas, Tex., on The Industry's Present Position; and by Reamy Joyce, district sales manager, Wood Preserving Division, Koppers Company, Marietta, Ohio, on A Narrow Gage Mine Tie Specification. At the annual banquet on Wednesday evening, Z. G. Hopkins, special representative, Western Railways' Committee on Public Relations, Chicago, spoke on The Railway Situation.

Reports were presented on moisture gradient; checking and splitting; mechanical equipment; changes in dimensions of crossties during seasoning; manufacturing practices; and on timber conservation, the latter report being supplemented by addresses on The Results of Five Years of Selective Cutting, by R. R. Reynolds, officer in charge, Crossett Experimental Forest, Crossett, Ark.; and on Proposed Federal Legislation in Regard to Privately Owned Timber Lands, by A. L. Nelson, forest supervisor, Ouachita National Forest, Hot Springs, Ark.

The following officers were elected for the ensuing year: President, Leonard Perez (re-elected); first vice-president, J. J. Schlafly, president, Potosi Tie & Lumber Company, St. Louis, Mo.; second vice-president, R. M. Claytor, plant manager, Southern Wood Preserving Company, Chattanooga, Tenn.; secretary-treasurer, Roy M. Edmonds (re-elected); directors, R. M. Hamilton, vice-president, T. J. Moss Tie Company, St. Louis; John Renfro, secretary, Taylor-Colquitt Company, Spartanburg, S. C.; A. A. Savage, vice-president, Bond

Brothers, Inc., Birmingham, Ala.; Ricker A. Van Metre, president, Wyoming Tie & Timber Company, Chicago; Ralph E. Meyers, vice-president and sales manager, International Creosoting & Construction Company, Galveston, Tex.

Abstracts of a number of the reports and addresses follow:

The Present Position of the Industry

By William Somerville*

Since the beginning of our defense preparations, construction of many large plants has been started and rushed ahead. It is here that the railway tie industry entered the picture and became an important factor in the success of this vital undertaking—more than ever, a so-called—"essential industry." Ties were needed quickly and in great quantity for the construction of switch tracks and extensions to serve these plants.

This unexpected demand very naturally caught the industry unprepared. Available stocks on the yards of producers were at only their usual level, entirely inadequate to absorb the impact of these heavy emergency orders, and it quickly became necessary for several of the trunk lines to help out substantially from their reserve stocks. To further complicate matters, conditions in the field became more and more difficult, effectively curtailing new production. Nevertheless, the tie industry has thus far managed to hold its end up very creditably.

It is to be expected that receipts by the railroads have suffered by reason of deliveries to defense industries. But the railroad shortage is far greater, particularly throughout southern production territory, than can reasonably be charged to defense demands alone.

Adverse forces have recently been at work which have created what is probably the most serious production problem we have ever faced. Outside of weather troubles, these difficulties are largely the offspring of supply and demand, which has brought about a sharp increase in the cost of timber and of mill and woods operations of all kinds.

For the last seven months, particularly in the South, the most acute difficulty has been rain. The season has been disastrous in this respect. Production in the bottom lands, where most of the oak and gum timber are located, has been at a standstill over the entire period. Pine ties, from the sandy ridges, have been coming out, but in greatly reduced volume, and with many interruptions.

The enormous government demand for yellow pine lumber, largely for cantonment construction, has combined with a fast diminishing supply of timber to force stumpage values to an all-time high. Small lumber mills have combed over every nook and corner, looking for saw logs, and owners of even a few acres of timber, formerly obtainable at $2 or $3 per thousand—now want $10 and these mills can pay it, with lumber prices higher than for 20 years. It is only now and then that a piece of pine timber can be purchased these days at a price which permits of its use for tie manufacture; and even then, the low cost is often made possible only by finding a market for such poles, large logs, pulpwood, and hardwood as the tract contains, all of which spell an expensive operation.

Owners of hardwood timber have also raised their sights, after observing what pine timber owners have accomplished; but heavy rains and overflows have kept hardwood land in such condition that prospective purchasers have, as a rule, been unable even to get into the woods to make the usual preliminary cruise. Much of this timber will not be workable before July.

The high lumber market has also exerted other troublesome influences on tie production. Small, independent tie mills have hired out to the large lumber manufacturers and tie trucks have gone to hauling lumber.

Finally, there has been the problem of labor. Coming in the wake of government relief and WPA projects, which enabled many tie makers to get away from the hard work of swinging a broad-axe, the present demand for labor at good wages, combined with enforced military service, have made tie makers hard to find. One result of this change in labor conditions is a constantly increasing proportion of sawn ties, replacing the custom-made axe ties on which producers have depended so largely in the past. This transition is already well under way.

Such contact as I have had with pulpwood operations and contractors in East Texas and Western Louisiana has left me with the definite feeling that no good will come to the crosstie industry from them, unless and until there is a marked change in the methods used; and even so, it is difficult to see how there can be other than serious conflict between the two industries. One paper mill in East Texas consumes 3,000 carloads of young pine trees, not quite large enough for ties, each year, and its capacity is shortly to be doubled. This mill can reach out for 130 miles for its timber supply at a freight cost of $30 per car; only half this much for timber near at hand. A 130-mile haul on a similar car of crossties in this same territory produces four times as much revenue for the carriers. This pulpwood rate is nine mills per ton per mile, meager compensation to the railroads when one considers its effect on their future tie problem. This pulpwood industry is a decided menace, at least in Texas and Western Louisiana territory.

* Vice-President, Potosi Tie & Timber Company, Dallas, Tex.

A "Tie" and Its "Decay"

By P. J. Watson, Jr.*

Ninety-five per cent of the employees of every company which I have worked for were honest, law-abiding and loyal people, but in recent years, and at an accelerated pace, the relationship between the employee and the employer is assuming an entirely different status and character. This tie, once so friendly and so strong, has been weakened, is not based on an honest understanding, and many times reflects anything but friendliness.

What has happened? Why is this tie deteriorating? What form of decay has attacked it? What are we, as employers, doing to analyze the decay in this bond or tie between management and labor? Are we giving it the study, thought and effort necessary to correct and treat it?

Perhaps a suggestion or two in answer to those questions is in order:

What has happened? A great many things, and most of them during the last few years, principally federal and state legislation, designed and adopted at the insistence of persons who found themselves in responsible positions as the result of the reaction by the people to the economic situation following the depression of 1929, and who have been continued in office through mass hypnotism, few of whom have ever experienced the responsibility of directing the useful efforts of any group of workers, or faced the necessity of meeting a payroll on Saturday night, and backed up by the wildest spending of taxpayers' money ever engaged in by this or any other nation.

Why is this tie deteriorating? Because these same

* President, Terminal Railroad Association of St. Louis, St. Louis, Mo.

persons and their like, not satisfied with forcing some of these benevolent statutes on an unsuspecting public, have insisted on interpretations and applications of these laws that were never dreamed of even by them when they originated these laws.

What form of decay has attacked this tie? A most treacherous and insidious form, conceived by shrewd leaders who have correctly diagnosed the reasons for this political expediency, and are capitalizing on it through the promise of delivering the votes of labor. These men pose as benefactors of labor, while in reality they are not only burdening the pocketbooks of the decent working men, but are imposing situations on management and the employers of labor which have resulted in many employers liquidating their businesses, rather than continuing to fight a losing game.

Are we giving the study, thought and effort necessary to stop and correct this decay? I doubt it. Are we not being lulled to sleep by this artificial business boom caused by the present tremendous additional expenditures incident to the program for national defense? Every employer of labor should attempt to inform and educate every member of his organization or business—so far as the law allows—in the fundamental laws of economics, laws which may momentarily seem to be inoperative, but which, as surely as night follows day, will again assert themselves, and function as consistently and vigorously as they have down through the ages.

I do not criticize the individual working man particularly for the situation we find ourselves in today with respect to his relationship with his employer. I believe that he still is the "salt" of the earth. Remember, he has been smothered in propaganda and promised everything he would like to have, and has seen many of his friends and neighbors live without working. Does he fully understand that he, and all others who work, are paying the bill, that today about one-third of our people are supported by the government, and that this figure does not include the hundreds of thousands of men now being absorbed into our expanding army and navy? Does he understand that our kind of government can exist only through the taxes derived from independent enterprise, and those who are employed by it? Does he understand that even if he pays no direct taxes, eighteen cents out of every dollar he received and spends, trickles into the government's revenues through the medium of hidden taxes passed on to the ultimate consumer, and that this item will increase by leaps and bounds as time goes, on unless something is done about it?

This decay must be stopped, and its cause eradicated if we are to continue to preserve and maintain that independent enterprise which has made possible the development of our nation. We as employers have a great responsibility and obligation to our employees to give them the facts, to point out the fundamentals and to exert our best efforts to convince them that their interests are our interests, and that selfishness and greed on our part or theirs have no place in our relationship.

The Transportation Outlook

By Z. G. Hopkins*

The tie industry cannot get along without the railroads. We in the railroad business will as readily agree that the railroads cannot get along without the tie industry. And we together know that the country needs rail transportation as greatly as ever it did.

There is little need to tell you of the concern of the tie industry over railroad revenues. Railroad tie purchases have always gone up and down with fluctuations in railroad revenues, and always will do so. Of course, development of practices through which the average tie life has been extended has reduced the number of new ties the railroads require annually. So has the fact that about 22,000 miles of railroad lines have been abandoned in the last 20 years, over 15,000 miles in the last 15 years. It should be noted in passing, though, that this abandonment has been due almost entirely to decreases in revenues resulting from diversion from the railroads of traffic they formerly transported.

If it is correct, as the most competent authorities are agreed, that railroad revenues have been reduced about a billion dollars a year as a result of public policies with respect to public aids, of one sort and another, to supplementary transportation, it is equally correct to say that these same policies have caused a reduction of at least $25,000,000 a year in railway tie purchases. In the five-year period ending with 1930, railway tie purchases annually amounted to roughly $95,000,000. In the succeeding five-year period they amounted to a little less than $35,000,000 annually. During that five-year period, I think it is clear that the railroads suffered relatively more from depression influences than from diversion causes. In the five-year period ending with 1940, average annual tie purchases were up to almost $47,000,000, and last year they were above $51,000,000. They, of course, will be considerably greater this year.

Allowances for maintenance expenditures always are influenced by the outlook ahead, and sometimes more by prospects than by current earnings. I think we all are agreed that prospects ahead are influencing enlargement of railroad expenditures now in greater degree than has been true at any time in the last 12 years. Unfortunately, current stimulus is due to influences that may not be relied upon permanently. It, therefore, seems most important that we do not permit the upturn in revenues now being experienced to distract attention, too much, from the things still necessary to do to provide the permanent stability, which has been lacking heretofore. And it cannot be stated too often, nor too positively, that placing all forms of commercial transportation under like obligation of self-support is essential to a permanent solution of railroad difficulties, on a basis that will insure permanently satisfactory rail service on a self-supporting basis.

The railroads are doing a splendid job now, as the whole nation swings into the defense job in which every American has common interest, common purpose and common responsibility. The railroads will continue to do a good job, however long the defense emergency may continue, just as they did a splendid job through the ten and more trying years preceding the defense crisis.

No industry has done a better job than the railroads have done through the last ten years. In that period the capital expenditures for additions and improvements to existing plant and equipment have amounted to more than $2,500,000,000. None of that money has come out of public treasuries, and its expenditure has not added to the tax load of anyone. Federal spending in aid to supplementary transportation, in that same 10-year period, has resulted in the addition of at least $85,000,000 to annual interest charges on government debt. Such spending has averaged in excess of $350,000,000 a year. The fact that interest on railroad debt is paid, if gross earnings permit, from rates and fares, while the interest on government debt, due to investment in supplementary transportation, is paid from taxes, by no means reduces the real cost of the transportation.

Expert authorities are agreed that, with the progres-

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sive stimulus of defense developments, the total freight load of the railroads, even next year, will be little above 85 per cent as great as they carried in 1929. This year it likely will be less than 80 per cent as great as the 1929 load. The railroads have so improved their own position since the outbreak of the European war that they are confident they will be able to handle promptly greater increases in volume than are in prospect.

With the additions to the capacity of supplementary transportation that have been made since 1929, the country is unquestionably equipped with facilities adequate to move much greater traffic volume than has been moved in any year in history. Public spending on additional transportation projects, under present conditions, will constitute a sheer waste of resources that should be devoted to purposes that assuredly will promote our common safety. We certainly will be better off if we use the present surplus transportation capacity of the country to its maximum, than we will be if we spend unnecessarily to add to that capacity, with the result that part of the capacity we already have will go unused.

As I see it, it is really a part of the defense job, along with doing everything required to meet whatever military exigencies may be ahead, to keep in mind too that we will defend nothing effectively if we sacrifice the system of free enterprise, the privileges of personal opportunity, the rights of individual industrial accomplishments, out of which have been created the American character which really makes the nation strong in this time of stress.

Cross-Tie Specifications

By C. D Turley*

The American railroads spent more for crossties than for any other single item except fuel. Crossties cost the railroads almost twice as much as rail; they constitute the largest single item of expense in the maintenance of way department.

Railroad tracks in the United States contain 1,250,000,000 crossties, with a total investment of more than three billion dollars. Annual renewals approximate 50,000,000 ties. With an investment such as this, the railroads are justified in taking whatever steps are necessary to obtain crossties that will give the most economical service life.

This points to the necessity for specifications for crossties. Such specifications are equally beneficial to the producer and to the user. The railroads must know what they want and they must specify it clearly and in simple language in order that the producers and their field men will understand what to produce and how to produce it.

Crosstie specifications should provide (1) Timber especially suitable for crossties; (2) Preservative treatment of such nature as to insure efficient and economical service life of ties; (3) Ties of such design and dimensions as to best meet the requirements of the particular traffic involved; (4) And finally, a tie that will fit in with the present-day, machine-age, maintenance of the track structure.

To a man who is not familiar with track maintenance, some of the details of crosstie specifications may seem to be overdrawn, or perhaps unnecessary. Let's take this well-known clause—"The lengths, thicknesses, and widths specified are the least permissible for each standard size of newly manufactured ties. Ties over one inch longer, thicker or wider than the standard size ordered will be rejected." The standard sizes for crossties have been selected because they provide just the required strength, with a certain factor of safety, to support the load and thrust on the track structure. If ties vary in thickness, the old tie bed must be dug out or filled in by hand when renewals are made and this increases the installation cost materially. If tie lengths are permitted to vary, the ballast section must provide for the longest ties in track and this increases the permanent investment in ballast. Also, during the rainy seasons of the year, mud works up through the ballast and churns around the ends of ties, softening the roadbed and causing rough track.

Again, a discing machine has been developed which cuts the ballast away from the ends of the ties and thus provides necessary drainage. After the roadbed has dried out, the ballast is plowed back in place by the same machine. Several hundred miles of track are corrected this way each year and you can readily see that if tie lengths vary sufficiently to prohibit the use of this machine, the increased cost of doing this work by hand labor, over a period of years, would more than offset the entire cost of the ties. I am calling these things to your attention to impress upon you that crosstie specifications in general use today are a written record of the experience of the American railroads over a long period of years.

Just a word for the crosstie inspector. He has a tough job. Don't be too critical with him, for remember that he is doing what his superior officer has told him to do. If he is the kind of a man that you and I would have him be, his first concern is to secure ties that will give efficient, economical service, that will produce safe track so that persons and goods can be moved from one place to another cheaply and quickly. The improvement that has been made in crossties during the last 15 years is proof of how well he has met his obligation.

Manufacturing Practices

A committee on Manufacturing Practice, of which John H. Wright, Wood Preserving Division, the Koppers Company, Carbondale, Ill., was chairman, presented a report on The Effect of Rigid Length Specifications on Crosstie Costs in which a comparison was presented between the costs of producing 1,000 ties cut to a specification authorizing a tolerance of one inch longer or shorter, as compared to a specification allowing this tolerance only longer. This comparison showed that the latter specification increased the production cost 1.452 cents per tie, including the extra costs for rehandling and restacking and the cost of producing the increased number of ties rejected.

The committee also reported on the extent to which the yield of ties would be reduced if manufacture was limited to "rifle sticks" or "boxed heart" ties (only one tie from each log). A study of the ties produced in a middle western area showed the following:

	Rifle Stick Ties (Hearts Enclosed)	Ties Cut Thru or Away From Hearts
Sawed Ties	89.0%	11.0%
Hewed Ties	99.7%	.3%
Average of Total Ties Measured	94.2%	5.8%

From one section of the territory studied, 81.5 per cent of the sawed ties were rifle sticks, and from another section 97 per cent. The hewed ties averaged the same from both sections. A higher percentage of rifle stick ties was found in Grades 5, 4 and 3A than in Grades 3, 2 and 1. Practically all ties cut from logs 16 in. and less in diameter have enclosed hearts. At the mills in this territory, approximately 80 per cent of the logs, at the time the survey was made, were 16 in. and less in diameter.

* Chief Tie Inspector, Illinois Central.

The committee concluded that if railroad tie manufacture were limited to rifle stick ties, it would eliminate ties from many butt logs, and the users would be deprived of many ties containing high grade timber. Furthermore, a study made several years ago by the research engineer of an eastern railroad led him to conclude that equal service might be expected from rifle stick ties and from ties which did not have the heart enclosed.

Conclusions

The committee presented the following conclusions: Well-manufactured ties assure a better return, reduce inspection costs, and result in satisfied customers. Ties should be made full size. They should be carefully measured for length, width and thickness and should have uniform dimensions from end to end. Tapered ties should be eliminated. Ends should be cut square. All bark should be removed. Timber cutters should be cautioned about bursting and splitting trees.

Logs should be manufactured soon after cutting. To prevent decay of material which is not to be moved immediately, it should be stacked in a way that will assure good ventilation and minimum contact of pieces.

N. Y. & L. B. Uses Buses in Lieu of Station Stops

THE New York & Long Branch (operated jointly by the Pennsylvania and Central of New Jersey) maintains 17 passenger stations in the 14½-mile stretch between Long Branch and Bay Head junction. These serve populous resort communities along the New Jersey seacoast, which being but 50-odd miles from New York, are invaded each summer by thousands of daily commuters.

Located in an era when local personal and common carrier transportation was lacking and patrons demanded railroad service right up to their front porches, these station stops now slow up heavy commuter trains; and a reduction in over-all running time which the communities are seeking cannot be attained unless superfluous stops are eliminated.

With a view of eliminating nine station stops for all commuters' trains experimentally from June 15 to September 27, inclusive, the road is polling passenger-opinion on its proposal. Questionnaires distributed late in April by train-crews contain blanks on which patrons may indicate passenger-status, origin point and train and state approval or disapproval of the plan.

So that the proposed spacing of station-stops (about two miles apart) will not work hardship on commuters not using automobiles to their respective stations, the local transit company serving the territory will make minor changes in bus routes paralleling the railroad to provide access to the "key" stations which would be continued. Buses will operate at frequent intervals and the local fare of eight cents will apply. The questionnaire shows that in no case are the bus routes more than 500 ft. distant from any existing railroad station between Manasquan and Long Branch. Accompanying map illustrates how the transit routes tie-in with proposed "key" stations, established at Manasquan, Spring Lake, Belmar, Asbury Park, Allenhurst, Elberon and Long Branch.

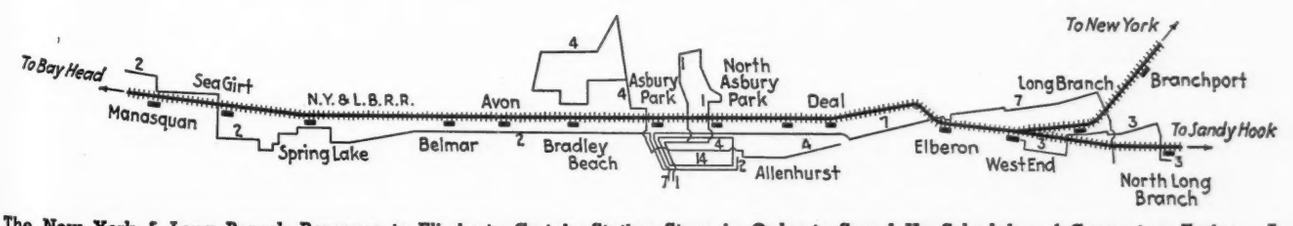
Elimination of the nine station stops for commuters' trains would speed up running time by as much as 16 min. in each direction, thus permitting "tired business men" to spend 32 additional minutes daily at the seashore.

Davenport 30-Ton Diesel Switcher

ONE of the latest developments in fitting locomotive switching power to local requirements is the 30-ton Diesel-mechanical locomotive, recently built by the Davenport Besler Corporation, Davenport, Iowa, for use at switching and terminal locations where 15,000 lb. tractive force meets the requirements. The new locomotive incorporates four years of experience with this size and type of Diesel switching power; the first unit has been in railroad branch line service for about that length of time on the Sumter Valley at Baker, Ore. The second unit, purchased in August, 1940, by the Chicago, Rock Island & Pacific for industrial switching at Morris, Ill., is the smallest of 13 Davenport Diesel switchers now in operation on this road and the only one equipped with mechanical transmission.

Records compiled on the Rock Island indicate that this new locomotive, No. 350, has delivered prompt and efficient switching service, working 95.1 per cent of its assigned hours in the period from August 27 to December 31. During this time the locomotive required the expenditure of only $8.79 for repair materials, and the total cost for maintenance, including both labor and material, averaged $.184 per hour. Fuel consumption in the same period averaged 4.11 gal. per hour and lubricating oil consumption .05 gal. per hour. The labor charge for cleaning and servicing amounted to $.419 per hour and the total operating cost was $1.618 per hour. On an hourly basis, therefore, the average grand total maintenance and operating cost for this locomotive during the period mentioned was $1.802.

When doing work within its capacity, this locomotive has the same high percentage of availability as the larger sizes of Diesel-electric switching locomotives; it represents a smaller investment, with reduced carrying charges and depreciation; it develops a higher power ratio at slow speeds, with quick acceleration, and has smooth, sensitive response to controls, thus reducing switching hours and minimizing damage to rolling stock and lading.



The New York & Long Branch Proposes to Eliminate Certain Station Stops in Order to Speed Up Schedules of Commuters Trains. As Here Shown, Manasquan, Spring Lake, Belmar, Asbury Park, Allenhurst, Elberon and Long Branch Will Be Established as Key Stations. Intermediate Stops Would Be Dropped By Certain Trains. The Seven Local Transit Routes as Here Numbered Would Fill the Void.

Davenport 30-Ton Diesel-Mechanical Switcher in Service on the Rock Island at Morris, Ill.

The Davenport 30-ton Diesel switcher is equipped with a 180-hp. Caterpillar D-17000 engine. It operates at 15 miles an hour and, if required to perform switching at several points, may be equipped with a special fifth speed gear for operation at speeds up to 25 miles an hour.

The locomotive has a length over coupler pulling faces of 23 ft. 6 in.; wheel base of 8 ft. 6 in.; six 33-in. coupled driving wheels with 5-in. by 9-in. journals and may be operated on a minimum curve radius of 55 ft. The starting tractive force at 25 per cent adhesion is 15,000 lb. and at 30 per cent adhesion, 18,000 lb.

Notable among the exclusive features of this locomotive are the axle hung transmission and the air booster clutch and shift. The rugged, smooth-functioning transmission, especially designed for heavy locomotive service, offers four speeds forward and four speeds in reverse, the construction assuring unusual freedom from wear and repairs. The fact that the reversing gears are in front of the main transmission causes the entire gear train to be reversed. Gear wear is, therefore, equally distributed over both faces of the gear teeth because the travel of switching locomotives is divided almost equally between forward and reverse. It is also said that a drastic reduction of gear clashing minimizes wear in this type of transmission.

The air booster clutch and shift add to the ease of control by affording quick and positive response with minimum effort.

New Books...

Proceedings of the Railway Fuel and Traveling Engineers' Association. Published by the association—T. Duff Smith, secretary, 327 S. La Salle Street, Chicago. 339 pages. Price, $2.

The committee reports presented at the fourth annual meeting of the Railway Fuel and Traveling Engineers' Association held at Chicago in October, 1940, and included in the Proceedings cover Air Brakes; Coal Preparation—Mechanical Cleaning; Fuel Records and Statistics; Locomotive Firing Practice (both coal and oil); New Locomotive Economy Devices; Stationary Boiler Plants; Turbine and Condensing Locomotives, and Utilization of Motive Power. Other special papers, also presented at the meeting and included in the Proceedings, were on the proportions of Steam Generated in Locomotive Boilers Used for Other Purposes, by E. E. Chapman, mechanical assistant, Atchison, Topeka & Santa Fe; Tests Conducted by the New York Central at Selkirk, by W. F. Collins, engineer of tests, New York Central; The Road Foreman and the Diesel Locomotive, by L. W. Powell, road foreman of engines, Atchison, Topeka & Santa Fe; How Much Locomotive Fuel Can Be Saved?, by J. G. Crawford, fuel engineer, Chicago, Burlington & Quincy; Fuel Economy from the Viewpoint of the Chief Dispatcher, by T. O. Weeks, chief dispatcher-division trainmaster, Missouri Pacific, and Moving Picture of Locomotive Fire Taken Under High Firing Rates.

Wage and Hour Manual, 1941 Edition. 1120 pages. 9¼ in. by 6¼ in. Bound in cloth. Published by the Bureau of National Affairs, Inc., 2201 M Street, N. W., Washington, D. C. Price $5.

This fat volume is the latest guide for management through a wilderness of social legislation. Superseding a 1940 edition, it contains about 500 additional pages. The volume is in three parts, the first containing 17 chapters treating separately overtime, minimum wage and other provisions of the Fair Labor Standards Act. Part II gives attention to the Walsh-Healy Public Contracts Act and miscellaneous federal laws regulating wages and hours. State legislation is treated more briefly in Part III with digests of wage, hour, child labor and industrial homework regulations for each state.

Principal material of interest to railroads—subject to the minimum wage provisions of the Fair Labor Standards Act, but not the hours sections—are digests of court and administrators' rulings with respect to "borderline" cases. A number of these findings cover tips for red caps, status of employees of contractors; position of cooks in terminal restaurants, etc. Important opinions of the Administrator of the Wage and Hours division concerning deductions for housing, ice and other facilities furnished maintenance-of-way employees are also reprinted.

NEW INDICATORS FOR SMOKING and non-smoking cars were installed recently by the Long Island on all 1,300 of its steam and electric passenger cars. Fitted to brackets on both ends of each car, the new signs have a green background with white letters reading "Smoking Permitted" on one side, and a red background with "Smoking Prohibited in This Car" on the reverse.

After studying the habits of its passengers, the road has prepared a list of rules for use by its crews. These denote a ratio of smoking to non-smoking cars on trains of every possible length. Thus, for instance, in a seven-car train there will be three cars available for non-smokers, while on a 12-car train there will be six. Since February the Long Island has had in effect a uniform policy of placing smoking cars at the east end of all trains. Formerly it placed smoking cars next to locomotives on steam trains and at the east end of electric trains.

NEWS

1940 Was Tough For Barge Line

Socialist transport venture tells hard luck tale of last year's operations

While the annual report of the government-owned Inland Waterways Corporation shows that 1940 operations resulted in the previously-announced net loss of $273,725, there is the usual claim that "the direct saving to the public on traffic handled by the Corporation during 1940 amounted to $2,057,000." The 1940 deficit figure was made public several months ago by I. W. C. President Chester C. Thompson in testimony before a Congressional committee, as noted in the *Railway Age* of April 5, page 618; it compares with a 1939 net loss of $299,950.

The "direct savings to the public" is "the difference between charges paid on traffic routed via I. W. C. and what the charges would have been if the traffic had moved by rail." On that basis the "total savings" from the inauguration of I. W. C. on June 1, 1924 to December 31, 1940, are set up as $35,012,000.

Last year's deficit came in the face of a revenue increase amounting to $523,215, the increase in operating expenses having amounted to $496,991. The rise in costs is attributed to adverse weather conditions, an unbalanced freight movement, augmented maintenance expenditures, and increased wage levels. Weather was so bad that it became necessary to embargo all freight at St. Louis and Cairo on January 27; the embargo was lifted at Cairo on February 8 and at St. Louis on February 10. "Several of the Corporation's towboats were caught in the ice for periods of as much as twenty days . . . " Meanwhile, because of "extremely low water" on the Missouri in September, 1939, two I. W. C. boats were unable to leave that river until March, 1940. Missouri conditions continued "unstable" with the result that service was abandoned for the season in early September. With the exception of the ice situation in the Mississippi and the low water in the Missouri, "river conditions were satisfactory."

The Corporation has undertaken "an orderly program" of gradual development of its physical equipment. Among equipment sold in connection with that program is the towboat "General Ashburn," and the "North Star" which was used by President Thompson's predecessor—the late Major General T. Q. Ashburn—as a "business boat." The latter had become "unnecessary to our operations." With respect to personnel, Mr. Thompson found it "gratifying" to report "more amicable employer-employee relations than formerly existed." While the Traffic Department continued "aggressive freight solicitation," there was some losses of tonnage in 1940. The latter was due to "world conditions" bringing about a shrinkage of exports through New Orleans; continued inroads of contract water carriers; and railroad efforts "to meet water competition."

President Thompson did not venture a prediction for 1941, but he did reveal that traffic during this year's first quarter has been 10 per cent above 1940. He said that I. W. C. is handling considerable national defense traffic, adding that "in the present emergency the Corporation is prepared to do its proper and rightful share . . ."

Commenting on the Transportation Act of 1940, the I. W. C. president expressed his conviction that its effect on the business of the Corporation will be "salutary and helpful." He is "firmly of the opinion that regulation of all water-borne commerce on inland rivers by the Interstate Commerce Commission will have a healthy effect thereon." Later on Mr. Thompson referred to the "increase in the activities of privately owned operators on the Mississippi" as a "gratifying result" of the "pioneer work" done by I. W. C. "in demonstrating the feasibility of water transportation."

The Corporation's consolidated income account shows that its 1940 gross revenue was $7,442,083, and operating expenses were $7,668,055. Thus the net operating deficit was $225,972, and that was boosted to $252,394 by "tax accruals" of $26,421. The net of adjustments for other income and deductions brought the 1940 net loss of $273,725 mentioned at the outset.

Bills in Congress

Representative Kefauver, Democrat of Tennessee, has introduced H. R. 4811 to amend the Transportation Act of 1940 to provide that land-grant reductions will apply on the whole movement "in cases where military or naval property of the United States . . . is transported . . . from a transit point at which such property was manufactured or processed from raw material with respect to which transit and reshipping privileges were applicable."

Representative Fulmer, Democrat of South Carolina, has introduced H. R. 4849 "to provide for regulating, inspecting, cleaning, and, when necessary, disinfecting railway cars, other vehicles, and other materials entering the United States from Mexico." Legislation in that connection was asked in a recent letter sent to Congress by the Department of Agriculture.

Would De-feather Rules in East

Eastern roads parry 30 p. c. wage boost demand with change in "featherbed" rules

Modification of certain important "featherbed" rules in existing agreements plus a new rule limiting the time within which grievances and claims may be presented is one of the answers of the Eastern roads to the demand of the transportation unions for a 30 per cent wage boost. On May 27 practically all of the Eastern lines served notice under the Railway Labor Act upon the five train- and engine-service brotherhoods of their intention to change the rules. Under the provisions of the Act the change is announced as effective 30 days from date of notice.

The rules which would be modified cover: (1) the starting time of yard crews; (2) use of road crews to perform incidental switching at initial, intermediate, and final terminals and (3) the handling of freight in passenger trains. These rules have given rise to endless controversy resulting in "strained" decisions of the National Railroad Adjustment Board costing the railroads large sums in punitive back-pay claims. Of all rules in the agreements they are perhaps the most unreasonable, burdensome and expensive.

In addition, the Eastern carriers would add a new rule limiting to 30 days the time within which grievances and claims may be presented. A limit of 90 days is provided for appeals. At the present time, no "statute of limitations" protects the carriers against claims arising out of occurrences dating back many years. The Adjustment Board has consistently entertained such claims, many of which are an "afterthought" following an award applying to some other railroad.

The roads would modify starting-time rules to provide the right to start yard crews at any hour of the 24 as service requirements arise. However, regular assigned crews would be given a fixed starting time, which could not be charged without advance notice to affected employees. Under existing rules, yard crews can only be started between the hours of 6:30 a. m. to 8 a. m., 2:30 p. m. to 4 p. m., and 10:30 p. m. to 12 midnight. Carriers finding it necessary to start yard crews outside of these periods have been penalized by decisions of the National Railroad Adjustment Board on claims of employees' for punitive payments. The Board (i. e. its referees) has consistently held that

crews called to duty during restricted hours must be paid a day's pay at time-and-one-half for time worked up to "legal" starting time and another day's pay at straight time for the remainder of the day. For example, in a case where a crew was regularly assigned to go on duty at 1 p. m., instead of 2:30 p. m., working until 9 p. m., it was held the crew was entitled for each day of work on such assignment to 20 hours pay—a day's pay (8 hours at time-and-one-half) from 1 p. m. to 2:30 p. m., and another day's pay (8 hours straight time) from 2:30 p. m. to 9 p. m.

The second rule the roads would change to allow them to use road crews for incidental switching at terminals at additional compensation under the combination rule. According to existing rules—as "re-written" by Adjustment Board referees—the carriers have been required to pay three days' pay for eight hours work or less—a day's pay to the road crew for their regular work, another day's pay to the same crew for incidental switching work, and a third day's pay to a yard crew which claimed they had the exclusive right to do the switching. The switching actually done by the road crew may have consumed no more than 10 or 15 minutes' time.

The third amendment would permit the carriers to move freight in passenger-train service whenever necessary, additional compensation to be paid crews only when such movement imposes additional duties upon them. Present rules—again as interpreted by N. R. A. B.—provide that employees be paid at higher mileage rates prevailing in freight service whenever freight is handled, in any manner or quantity. Such method of payment naturally prevents expeditious handling of freight to meet competition or demands of the national defense.

Decision to serve notice on the Brotherhoods was taken by the Eastern Railroad Presidents' Conference. It is certain that a majority of all member roads will join in the action and probable that "practically all" will. However, at time of writing, all individual managements had not yet made their decisions known. There may be dissenters, since rules vary as among roads, and the proposed changes might affect certain carriers adversely.

Status of R. F. C. Rail Loans

The monthly statement of the Reconstruction Finance Corporation as of April 30 shows disbursements to railroads, including receivers, of $809,559,675 and repayments of $322,498,506.

Switching Charges at Richmond

While ordering the cancellation of Southern tariffs proposing a $6.93-per-car reciprocal switching charge at Richmond, Va., the Interstate Commerce Commission has done so without prejudice to the filing of new schedules naming a charge not in excess of $6 per car. The switching involved is that done for other railroads serving Richmond, and present charges range from $1.98 to $4.95 per car.

The same report found that the Southern had justified an increase from $4.95 per car to $6.93 in the charge for switching from the terminal of the Eastern Steamship Lines to points of interchange with rail lines. Commissioner Mahaffie, dissenting in part, agreed with the latter finding, but he thought that $6.93 per car had been justified also in connection with the reciprocal switching. The proceeding is docketed as I. & S. No. 4619.

R. B. White is B. & O. President on June 1

Roy B. White, hitherto president of Western Union, will assume the duties of president of the Baltimore & Ohio on June 1, succeeding Daniel Willard, who becomes chairman of the board on the same date. Announcement of the election of Mr. White to the presidency was made in the *Railway Age* of May 3, page 755.

Money for Rivers and Harbors

President Roosevelt has signed H. R. 4183, the War Department Civil Functions Appropriation Bill for the fiscal year ending June 30, 1942. The bill carries appropriations totaling $68,268,640 for rivers and harbors work, the Senate having succeeded in adding $5,168,600 to that item as it originally passed the House.

Inter-American Highway

The Senate on May 26 passed S. 1544 which authorizes an expenditure by the United States of $20,000,000 for the purpose of cooperating with Central American governments in the survey and construction of the proposed Inter-American highway. The survey and construction work authorized will be directed by the Public Roads Administration.

Vacations with Pay

Reports last week in railway labor circles to the effect that agreement had been reached "on most of the main points" in the vacations-with-pay controversy were characterized as "news to us" at offices of the National Mediation Board this week. All that would be said at the Board offices was the usual statement that the mediation meetings with representatives of the carriers and the 14 non-operating brotherhoods are continuing.

Excursions Curtailed

"On account of heavy holiday traffic," the Pennsylvania is cancelling its low-cost over-night excursion between New York and Washington, D. C., scheduled for June 1. Pennsylvania-Reading Seashore announced that week-end excursions and low-rate party specials will not be available during July and August. Equipment is needed for troop movements and increased travel on regular trains.

Motor Tariffs Suspended

The Interstate Commerce Commission has suspended until December 25 various Central-Territory motor carrier traffic tariffs wherein the Central States Motor Freight Bureau, Inc., and others are proposing to establish revised volume and truckload commodity rates. The proceeding, docketed as I. & S. Docket No. M-1636, has been set for hearing July 15, before Examiner H. C. Lawton at the Hotel Sherman, Chicago.

Representation of Employees

Results of recent elections in representation-of-employees cases have been announced by the National Mediation Board. On the Florida East Coast the Brotherhood of Railroad Trainmen won the right to represent yardmasters, while the United Transport Service Employees of America won the right to represent the train porters; and on the Chicago & Western Indiana and on the Belt Railway of Chicago the Brotherhood of Maintenance of Way Employees won the right to extend their representation to include crossing watchmen.

Non-Train Service Brotherhoods to Demand Wage Increase Also

Officers and committees of 14 non-train service brotherhoods will meet in Chicago on June 4 to formulate a formal wage increase demand, according to an announcement made by George M. Harrison, president of the Brotherhood of Railway Clerks. The action follows that of the five transportation brotherhoods which, as reported in the *Railway Age* of May 24, have decided to demand a 30 per cent increase in basic pay on June 10.

Central Western Board to Meet June 10

The Central Western Shippers Advisory Board will meet at Salt Lake City, Utah, on June 10 and 11. Co-ordination of national defense requirements with expanding needs of general business will be the theme of the two-day meeting. At a luncheon on June 11, William M. Jeffers, president of the Union Pacific, will speak on Teamwork With Our Government, and William J. O'Connor, manager of the Utah department of the American Smelting and Refining Company, will talk on Business, Transportation and Defense.

Canadian Ships Will Be Permitted to Carry Lake Ore

The Senate on May 23 passed the House-approved H. R. 4632 to permit vessels of Canadian registry to transport iron ore between United States ports on the Great Lakes during 1941. As noted in last week's issue, the legislation has been urged by the Transportation Division, Office for Emergency Management, so that the Canadian vessels may help out on this year's record ore movement.

G-Men Uncover Clothing Robberies

Thievery costing individual railroads as high as $60,000 in a single year has been uncovered by the Federal Bureau of Investigation, which has indicted 12 truck drivers and six "fences" in New York for stealing clothing from piers and yards of five railroads during the period from October, 1936, to March, 1938. The thefts took place, according to the indictment, on freight-receiving piers of the Baltimore &

Ohio, Erie, Pennsylvania, Delaware, Lackawanna & Western and from the St. John's freight house of the New York Central.

The technique of robbery, according to the Bureau, was simple. A truck driver delivered his freight to the proper railroad pier or station and obtained a receipt for it. A confederate, however, "on another errand" managed to slip in and remove it from the platforms to central storage points where receivers, or "fences" gave it an outlet in the trade.

Railroad Ladies to Vie with Airmen on Quiz Program

Six women employees of the New York zone of the Pennsylvania will compete with six airline employees from the control tower of La Guardia Field, New York, on a "True or False Quiz" program to be broadcast over radio station WJZ and NBC "blue" network from 8:30 to 9 p. m. on June 2. The Pennsylvania team includes a dietitian in the Dining Car department, a telephone operator, a block operator, a clerk in the diagram room, a clerk in the office of the general manager and a clerk in the freight billing bureau.

A. A. R. Grain Loading Poster Takes on New Motif

The so-called "grain loading poster" issued annually by the Car Service division, Association of American Railroads, this year stresses the necessity of an adequate car supply for the national defense effort. Since maximum loading of grain and proper usage of grain cars is essential to avoid a tight car supply the railroads are asking grain shippers to "Protect yourself by

(1) Trimming to even levels and allowing proper space for inspection

A 24-inch space must be left on top of load for samplers to enter car and make proper inspection, otherwise cars are subject to reduced grades, re-inspection and delay.

(2) Mixing grain thoroughly

Uneven grades—musty spots—heating spots—reduce the value of the entire car.

(3) Observing the load limit mark

Load to weight indicated by load limit. The actual number of pounds that can be carried by a box car is the load limit marked on the car, not the marked capacity plus ten per cent. Exceptions: grains such as oats, barley and ear corn that may load too high for proper inspection."

Railroads Carry Bankers to 'Frisco

The railroads are handling a 13-car special train for members of the American Institute of Banking from eastern points to the A. I. B. convention in San Francisco, Cal. The Pennsylvania started a 10-car special out of New York on the afternoon of May 24 which took up additional delegates at Newark, N. J., Philadelphia, Pa., and Harrisburg. Two more carloads of bankers joined up at Chicago. The itinerary includes stops at Colorado Springs, Colo., Santa Fe, N. M., Grand Canyon, Colo., Los Angeles, Cal., Fresno, Portland, Ore., Spokane, Wash., and Yellowstone Park, Wyo., as well as the convention in San Francisco from June 2 to 7 inclusive. The party will return to New York on June 13. In addition to the regular lounge and dining cars with which the A. I. B. special is equipped, the P. R. R. has converted one of its 60-ft. baggage cars into a recreation car complete with dance floor and talking machine.

President's Emergency Powers Over Transport

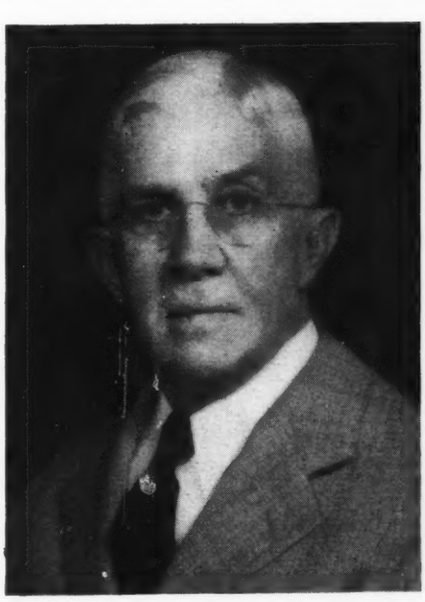
President Roosevelt's May 27 proclamation of an unlimited national emergency seemingly makes available to him certain powers over transportation which are provided for in "time of war or threatened war." However, the act of August 29, 1916, authorizing the President, through the Secretary of War to take possession and assume control of any system or systems of transportation apparently applies only "in time of war."

Among the power which are available "in time of war or threatened war" are those embodied in provisions of the Interstate Commerce Act which stipulate that the Interstate Commerce Commission, upon demand of the President, shall establish priorities for transportation of troops and shipments of war materials.

Fowler, I. C. C. Bureau of Accounts Director, Retires

Frank S. Fowler, director of the Interstate Commerce Commission's Bureau of Accounts since December, 1937, retired under the federal government's pension rules on May 31—his 70th birthday.

Mr. Fowler was born May 31, 1871, at Hazleton, Pa. He attended grade school at Kingston, Pa., and received his high school education in Buffalo, N. Y. Shortly after his graduation from high school, Mr. Fowler entered railroad service, spending a short time in the employ of the Wilmington & Northern. Next he was in industrial accounting work, but he returned again to railway service with the Lehigh Valley, remaining in the employ of that road until the beginning of his association with the I. C. C.



Frank S. Fowler

The retiring director entered the commission's service in 1909 as an examiner and on July 1, 1914, he was appointed examiner in charge of the Bureau of Accounts, St. Louis, Mo., branch office. Mr. Fowler remained in St. Louis until September, 1920, when he was recalled to Washington to become chief of the Bureau's Section of Depreciation which was then newly organized. Three years later on September 1, 1923, he became assistant director of the Bureau, a position which he retained until his promotion to the directorship in December, 1937.

Friends of Mr. Fowler among railway accounting officers tendered him a dinner on May 21, while his associates at the commission honored him at a farewell banquet on May 28.

Million Members of Armed Forces Transported in First Quarter

During the first four months of this year more than a million members of the nation's armed forces were transported by rail, according to the Military Transportation Section of the Association of American Railroads. The total number of men actually moved by the railroads during this period was 1,002,382, an average of 250,596 men per month for four months.

More than half of the men moved on special trains over long distances, while others were handled in regular train service by the addition of extra cars. The entire movement was made without interference with regular freight and passenger traffic, the A. A. R. statement said.

The largest single monthly movement during this period was in March when a total of 327,188 soldiers, sailors, marines and selectees were moved by the railroads. During this month, 619 special trains were operated throughout the country. The total number of special trains for the four months was 1,890, according to the railroad association's reports.

Kendall Calls for Heavier Loading

Among the many existing opportunities for increasing average car supply, few "are more promising than gains which are possible through loading more tonnage in each car," said W. C. Kendall, chairman of the Car Service Division, in a recent circular calling attention to the favorable effect on the car supply of the all-time high of 37.7 tons per car attained in 1940. Mr. Kendall said that "the equivalent of 26,000 freight cars was added to the available car supply in 1940 through the simple expedient of increasing the average tonnage loaded in each car."

The composite figure for 1940 was the result of new tons-per-car records made for all commodity groups except Products of Agriculture which was exceeded by two-tenths of a ton in 1938. Continued efforts in the direction of heavier loading, Mr. Kendall pointed out, "will be found very much worth while and easy of accomplishment." While the Car Service Division chairman recognized that such factors as trade practices and inventory requirements preclude loading all cars to maximum capacity, he nevertheless asserted that "there

are many commodities moving in substantial volume where heavier loading would be mutually beneficial and where continued efforts will result in increased utilization of equipment."

Freight Station Section to Meet June 17-19

The Freight Station Section of the Association of American Railroads will hold its annual meeting at the Statler Hotel, St. Louis, Mo., on June 17-19. The program, with the subjects to be considered, is as follows:

JUNE 17, MORNING SESSION

Call to order and opening remarks—O. Maxey, chairman.
Address: F. W. Green, chief operating officer, St. Louis Southwestern.
Address: P. J. Watson, Jr., president, Terminal Railroad Association of St. Louis.
Report of Committee on Closed Car Loading Rules.

AFTERNOON SESSION

Report of Committee on Station Traffic.
Solicitation of L. C. L. Freight.
More Efficient and Economical Pick-Up and Delivery Service.
Lighterage in New York Harbor.

JUNE 18, MORNING SESSION

Address: W. C. Kendall, chairman, Car Service division, A. A. R.
Report of Committee on Station and Terminal Operation.
Regular Revision of Marked Tares of Cars.
Canvas Containers for Handling Perishable Merchandise.
Use of Body Ice for Protection.
Application of "Dangerous" and "Dangerous Empty" Placards to Tank Cars Containing Inflammable Liquids.
Use of Conveyors in Handling Freight.

AFTERNOON SESSION

Address: P. F. Buckle, (chairman, Safety Section, A. A. R.), superintendent of safety, Chicago, Burlington & Quincy.
Report of Committee on Station Office Operation.
Simplified Form of Making Settlement of Pick-Up and Delivery Drayage Allowance.
Providing Space on Bills of Lading for Purpose of Showing Stop to Finish Loading or to Partly Unload.
What Car Records are Necessary to Enter in Car Record Book at Junction Stations Where the Interchange is Heavy.

JUNE 19, MORNING SESSION

Report of Committee on Station Office Operation (Continued).
Uniform Passing Blanks.
Interline Accounting—Request for Inbound Transit Reference.
Stop in Transit Freight Waybill.

AFTERNOON SESSION

Address: C. H. Dietrich, executive vice-chairman, Freight Claim Division, A. A. R.
Report of Committee on Loss and Damage.
Reconditioning Salvage for Sale.
Export Shipments—Canada.
How Can Errors in Less Carload Loading Be Reduced?

Harrington Amendment Is Applied for First Time

Acting in Finance Docket No. 13242, the application of the Pennsylvania and its subsidiary, the Cleveland & Pittsburgh, and the Pittsburgh & Lake Erie to purchase the properties of the Beaver Valley, Division 4 of the Interstate Commerce Commission has approved the purchase and for the first time has applied the labor-protection condition made mandatory by the so-called Harrington Amendment to the Transportation Act of 1940.

The principal feature of Division 4's interpretation of the labor-protection clause is a broad general provision to the effect that the Pennsylvania and the P. & L. E. shall, by contract, guarantee each employee, for a period of not less than four years from the effective date of the commission's order, monthly compensation equal to one-twelfth of the total compensation received by him in the 12 months immediately prior to April 17, 1941, the date of the filing of the application.

The provision goes on to state that the carriers will have been deemed to have complied with it if they either employ him at his previous rate of pay, or, if he is employed elsewhere, they compensate him for the difference between his pay there and what he had previously received.

It is further provided, however, that such protection shall cease prior to the expiration of the four-year period "in the event of his failure, without good cause, to accept a position with either carrier, the duties of which position he is qualified to perform, or in the event of his resignation, death, retirement on pension, or dismissal for good cause."

Although this is the first case in which the Harrington amendment has been applied, it is pointed out at the commission that in several other cases now pending it probably will be necessary to attach more detailed conditions regarding the protection of displaced employees.

Vest-Pocket Timetables For New Haven Customers

Brilliant-hued, vest-pocket size timetables of trains operating between New York and main line New England cities have just been issued by the New York, New Haven & Hartford. In addition to schedules of trains, information concerning coach and Pullman fares and photographs of types of equipment featured on the various trains are included. The booklet covering "shore line" trains between New York and Boston, Mass., is bound in a red-and-white jacket, while that pertaining to trains between New York and Springfield, Mass., is jacketed in blue-and-white. The timetables give arrival and departure in daylight saving time. All through trains are covered, including the special which operates between Stamford, Conn., and Hartford only on legislative days during the sessions of the Connecticut legislature.

Pelley Offers Diesels to T. V. A.

On behalf of the railroads, the Association of American Railroads has offered the use of some Diesel-electric locomotives as an additional source of power in the Tennessee Valley Authority area if the locomotives should be found suitable for the purpose.

"This action was taken," said A. A. R. President J. J. Pelley, "when it was learned that defense production might be reduced in that area because of limitations of the power supply as a result of deficient rainfall. It was not the result of request by the government, but was an offer made simply because of the interest of the railroad industry in the defense effort of the nation.

"Electrical engineers are studying the technical questions involved to determine whether the locomotives are susceptible of this use. Railroad locomotives, of course, are important agencies of defense production in and of themselves, and there will be no diversion of them from their ordinary use of transportation unless it be to help meet a real need of defense which cannot be met otherwise. However, if such need should develop, and the use of portable power-generating plants of this type is found to be feasible from the engineering standpoint, the railroads can make this added contribution to the nation's needs and still have the capacity to handle their regular job of transportation."

Operating Heads Plan for Heavy Transportation Demands

Plans for the expeditious handling of the nation's commerce during the remaining months of 1941 were discussed by the 125 chief operating officers of major railroads at a meeting at Chicago on May 26, in answer to a call made by C. H. Buford, vice-president of the operations and maintenance department of the Association of American Railroads. One of the first problems considered was the movement of grain which starts in June. On May 24 the

This Is An Actual-Size Photograph of the Front Cover of the New Haven's New Vest-Pocket Size Timetables Covering New York-Boston Service. Its Color is Red-and-White

railroads had 17,000 cars stored in the grain growing territory or 5,000 more than at the same time last year, and plan to have 25,000 cars in the territory before the peak movement occurs even though they are now being called upon to use some of the assembled cars to handle wheat that has been held in the territory under government loans.

Another subject discussed was the handling of troops. During the first four months of 1941, the railroads handled 1,002,000 military men, not including those traveling while on leave, in 2,000 special trains and several thousand extra cars on regular trains.

The heavier loading of freight cars by shippers to conserve the nation's car supply was also considered. Although efforts already made have increased loadings to 37.7 tons per car in 1940, a record high and almost a ton more than in 1939, further efforts will be made to encourage the heavier loading of cars with emphasis being placed upon the heavier loading of merchandise cars.

Specific suggestions for obtaining maximum efficiency in its railroad transportation machine included the elimination of delay to cars in yards and terminals, the addition of locomotives to speed up car handling, and the speeding up of shop operations to reduce the time cars are out of service.

Truck Freight Volume in April 38.3 Per Cent Over 1940

The volume of revenue freight transported by motor truck in April increased 4.4 per cent over March and 38.3 per cent over April, 1940, according to reports compiled by American Trucking Associations.

Comparable reports were received from 202 motor carriers in 42 states. The reporting carriers transported an aggregate of 1,509,143 tons in April, as against 1,446,104 tons in March, and 1,111,604 tons in April, 1940. The ATA index figure, based on the 1938-1940 monthly average tonnage of the reporting carriers, stood at 143.24 for April, compared with March's 138.90.

Slightly more than 78 per cent of all the freight transported in the month was reported by carriers of "general freight." The volume in this category increased 6.7 per cent over March, and 41.6 per cent over April of the previous year. Transporters of petroleum products, accounting for almost seven per cent of the total tonnage reported, showed an increase of 4.9 per cent in April, as compared with March, and an increase of 10.8 per cent over April, 1940. Movement of new automobiles and trucks, constituting almost six per cent of the total tonnage, decreased 19 per cent under March, but held 9.2 per cent over April, 1940. "The decline under March was attributable, in part, to strikes in manufacturing plants."

Haulers of iron and steel products reported about 4½ per cent of the total tonnage. The volume of these commodities showed a decrease of 7.8 per cent under March, but increased 25.5 per cent over April of last year. A little more than four per cent of the total tonnage reported was miscellaneous commodities, including tobacco, milk, textile products, building materials, coal, cement and household goods. Tonnage in this class increased 18.4 per cent over March and 37.1 per cent over the volume hauled in April, 1940.

Freight Car Loading

Carloading totals for the week ended May 24 were not available at the time this issue went to press.

Loading of revenue freight for the week ended May 17 totaled 861,227 cars, according to the Association of American Railroads. This was an increase of 24,128 cars or 2.9 per cent above the preceding week, an increase of 182,212 cars or 26.8 per cent above the corresponding week in 1940, and an increase of 248,389 cars or 40.5 per cent above the comparable 1939 week.

The summary, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading

For Week Ended Saturday, May 17

Districts	1941	1940	1939
Eastern	180,044	145,609	133,581
Allegheny	190,733	141,052	119,724
Pocahontas	57,787	45,744	39,003
Southern	121,816	100,717	86,130
Northwestern ..	137,236	103,942	96,650
Central Western	118,872	97,183	94,626
Southwestern ..	54,789	44,818	43,174
Total Western Districts	310,897	245,943	234,450
Total All Roads	861,277	679,065	612,888
Commodities			
Grain and grain products	38,905	30,754	34,169
Live stock	12,936	11,861	11,811
Coal	147,454	113,183	89,717
Coke	13,111	8,457	4,462
Forest products.	41,342	34,777	30,085
Ore	76,609	48,935	36,225
Merchandise l.c.l.	162,519	148,918	152,783
Miscellaneous ..	368,401	282,180	253,636
May 17	861,277	679,065	612,888
May 10	837,149	680,628	554,644
May 3	794,301	665,547	572,025
April 26	721,702	644,804	585,190
April 19	708,651	628,468	557,867
Cumulative Total, 20 Weeks ...	14,668,491	12,690,982	11,512,996

R. E. A. Gets Additional Temporary Trucking Rights

Temporary operating authority on several additional trucking routes in various states has been granted to the Railway Express Agency by the Interstate Commerce Commission. Included in the latest batch of commission orders are those granting previously-denied R. E. A. applications for temporary authority on some 27 routes. As noted in the *Railway Age* of May 24, these R. E. A. applications have been opposed by American Trucking Associations.

Fleming Asks High Court to Review Red Cap Case

The Supreme Court has been asked to review the question of whether tips are wages under the Fair Labor Standards Act in a memorandum filed by the Solicitor General in behalf of General Philip B. Fleming, administrator of the Wage and Hour Division, Department of Labor.

The administrator has intervened in the suit brought by red caps employed at the Union Terminal Company, Dallas, Texas, against the terminal company for restitution of wages under the Wage and Hour law. The Circuit Court of Appeals for the Fifth District last month found that the tips received by red caps constituted wages paid to them, reversing the judgment of the court below which had found in favor of the red caps and awarded them $77,753.98 in back pay and liquidated damages.

The memorandum was submitted in support of a petition for a writ of certiorari which seeks to bring this case before the Supreme Court as a test case and thus judicially settle a question which affects the method of compensation of the more than 6,000 red caps employed in railroad terminals throughout the country. Over fifteen suits by red caps against railroads on this question involving several million dollars are now pending.

The red caps maintain that tips cannot be considered as part of wages paid, but that the statutory minimum wage of 30 cents an hour should be paid by the terminals without regard to tips. The terminals on the other hand take the position that tips can be considered part of the 30 cents minimum wage. Under a so-called accounting and guarantee plan the Dallas Terminal had required the red caps to report the amount of tips received and the number of hours worked and at the end of the week had paid the difference if tips did not equal the minimum wage.

This accounting and guarantee plan was put into operation by the Dallas Terminal Company at the time the Wage and Hour law became effective in October, 1938. Similar plans were used by numerous terminal companies to pay their red caps. These plans have since been abandoned in favor of a ten cents a parcel plan utilizing tickets.

The memorandum asserts that from the beginning the plan was a source of dissatisfaction and that it violates the Wage and Hour law. It cites the interest of Congress in the question of tips as wages as shown by a resolution passed by the Senate authorizing investigation by the Administrator of this question.

[In this connection General Fleming has sent to the Senate a letter informing that body that he has undertaken an investigation of the employment, wages, and working conditions of red caps by railroads and terminal companies in response to Senate Resolution 105 and that a report will be made at the conclusion of his investigation.]

The memorandum states that "in view of the long-continued administrative concern with the problem, the evident interest of Congress in its solution, and the large number of pending suits which involve the same issue as that here presented, the importance of a determinative decision of this case by this Court seems manifest."

It contends that the duty imposed by the Wage and Hour law upon the Terminal Company to pay wages to the red caps is not discharged by permitting the red caps to retain the tips they receive from passengers. Such tips are not the property of the terminal company, but belong to the red caps, it is argued. It points out that the red caps themselves had never consented to this accounting and guarantee plan of compensation, nor had they by continuing to work under this plan waived their original right to ownership of tips; and furthermore, the passenger who pays the tip intends such tip to be the property of the red cap. The solicitor general contends that the action of the terminal company in allowing the red caps to keep that property did not constitute the payment of wages within the meaning of the Wage and Hour law.

Equipment and Supplies

LOCOMOTIVES

THE UNION PACIFIC is reported to have ordered 20 4-6-64 type steam locomotives from the American Locomotive Company.

THE ARGENTINE NAVAL COMMISSION is inquiring for one 2-8-2 type steam locomotive.

THE NASHVILLE, CHATTANOOGA & ST. LOUIS is inquiring for ten steam road locomotives of the 4-8-4 type.

THE NEW YORK, CHICAGO & ST. LOUIS is inquiring for 15 2-8-4 type road locomotives with 22,000 gal. tenders.

THE CONEMAUGH & BLACK LICK has ordered two 0-8-0 type steam switching locomotives from the Lima Locomotive Works, Inc.

THE KANSAS CITY SOUTHERN has ordered two 2,000 Diesel-electric passenger locomotives and two 1,000 hp. Diesel-electric switching locomotives from the Electro-Motive Corporation.

The five steam locomotives recently ordered by the United States War Department for service in Newfoundland from the American Locomotive Company were of the 2-8-2 type and not the 2-6-2 as reported in the *Railway Age* of May 17.

THE UNITED STATES INTERIOR DEPARTMENT has placed an order for one mountain-type (4-8-2) locomotive for the Alaska Railroad with the Baldwin Locomotive Works at cost of $110,000. The inquiry for this locomotive was reported in the *Railway Age* of April 26.

THE NASHVILLE, CHATTANOOGA & ST. LOUIS has ordered six Diesel-electric switching locomotives as follows:

2 660 hp. American Locomotive Company
1 660 hp. Baldwin Locomotive Works
1 1,000 hp. Baldwin Locomotive Works
1 660 hp., Electro-Motive Corporation
1 1,000 hp. Electro-Motive Corporation

Orders for 10 4-8-4 type freight and passenger locomotives will be placed later.

THE BOSTON & MAINE has ordered two 1,000-hp. and two 660-hp. Diesel-electric switching locomotives and the Portland Terminal Company, a joint affiliate of the Boston and Maine and Maine Central, one 1,000-hp. and one 660-hp. Diesel-electric switching units as follows:

2—1,000 hp., Electro-Motive Corporation
2— 660 hp., Electro-Motive Corporation
1—1,000 hp., American Locomotive Company
1— 660 hp., American Locomotive Company

FREIGHT CARS

The Southern Pacific to Buy 4,000 More Cars

The Southern Pacific has issued inquiries for a total of 4,000 freight cars which are in addition to 2,500 box cars ordered in March of this year. The new inquiry comprises the following:

2,100 40-ft. 6-in. steel-sheathed wood-lined box cars
500 50-ft. auto-box cars
700 gondola cars
300 flat cars
250 tank cars
150 70-ton hopper cars

This road was reported in the *Railway Age* of May 24 as considering the purchase of an additional 2,500 box cars—by duplicating the orders for the 2,500 cars that were purchased in March—which latter were reported in the *Railway Age* of March 22.

N. Y. C. to Buy 1,500 Cars

The New York Central has issued inquiries for a total of 1,500 freight cars comprising the following:

750 40-ft. 6-in., 50-ton box cars
250 50 ft. 6-in., 55-ton box cars
300 52-ft. 6-in., 70-ton gondola cars with drop ends
200 65-ft. 6-in., 70-ton gondola cars with drop ends

THE NORFOLK & WESTERN is inquiring for 1,000 hopper cars of 70 tons' capacity.

THE SANDERSON & PORTER COMPANY is inquiring for 50 box cars of 50 tons' capacity.

THE CHICAGO & EASTERN ILLINOIS is inquiring for 500 box cars of 50 tons' capacity.

THE GREAT NORTHERN is inquiring for 2,000 40½ ft. 50-ton wooden-sheathed box cars.

THE DENVER & RIO GRANDE WESTERN is inquiring for 100 60-ft. flat cars of 70 tons' capacity.

THE AKRON, CANTON & YOUNGSTOWN is inquiring for 100 all steel center-dump hopper cars of 50 tons' capacity.

THE CHICAGO & EASTERN ILLINOIS is inquiring for 500 50-ton steel frame, steel-sheathed box cars.

THE CHICAGO, ROCK ISLAND & PACIFIC is inquiring for from 800 to 1,000 box cars of 50 tons' capacity and for from 200 to 250 coal cars of 50 or 70 tons' capacity.

THE NASHVILLE, CHATTANOOGA & ST. LOUIS has ordered 500 box cars and 300 gondola cars from the Pullman-Standard Car Manufacturing Company.

THE WABASH CAR & EQUIPMENT CO. of St. Louis, Mo., has ordered ten 70-ton covered hopper cars from the American Car & Foundry Co.

THE ATCHISON, TOPEKA & SANTA FE has placed an order for 1,500 40-ft. 6-in. box cars and 500 50-ft. 6-in. box cars with the Pullman-Standard Car Manufacturing Company. Intention to purchase this equipment was reported in the *Railway Age* of May 24.

THE SOUTHERN has ordered 100 all steel cement cars of 70 tons' capacity from the Greenville Steel Car Company. The inquiry for this equipment was reported in the *Railway Age* of May 3.

THE CENTRAL OF GEORGIA is inquiring for 150 steel-sheathed wood-lined auto-box cars of 50-tons' capacity, 50 box cars of 50 tons' capacity and 50 flat cars of 50 tons' capacity.

THE BALTIMORE & OHIO has placed an order for 1,000 box cars with the Pullman-Standard Car Manufacturing Company. This brings to 3450 the number of cars ordered by this road so far this year.

THE GULF, MOBILE & OHIO is inquiring for a total of 1,050 freight cars consisting of the following: 850 40-ft. 6 in. box cars of 50-tons' capacity; 50 50 ft. box cars of 50-tons' capacity and 150 hopper cars of 50-tons' capacity.

THE LEHIGH & NEW ENGLAND has ordered an additional 100 covered hopper cars of 70 tons' capacity from the American Car & Foundry Co. This raises to 215 the number of cars of this type ordered by this road from the American Car & Foundry Co. so far this year.

THE LEHIGH VALLEY has issued inquiries for from 200 to 400 box cars of 55 tons' capacity and 100 automoible cars of 55 tons' capacity. This road was reported as expected to enter the market for a total of 1,010 cars, including the above, in the *Railway Age* of May 17.

THE KANSAS CITY SOUTHERN has ordered 200 50-ft. 50-ton box cars from the Pullman - Standard Car Manufacturing Company, the order being a duplicate of that placed for the Louisiana & Arkansas which was reported in the *Railway Age* of May 10.

THE MAINE CENTRAL has ordered 400 40-ft. 6-in. all steel box cars of 40 tons' capacity from the Magor Car Corporation and 100 twin hopper coal cars of 50 tons' capacity from the Bethlehem Steel Company. The inquiry for this equipment was reported in the *Railway Age* of May 24.

THE BOSTON & MAINE has placed orders for a total of 800 freight cars as follows:

200 40-ft. 6-in., 40 ton all steel box cars—Magor Car Corporation.
500 50-ton flat bottom gondola cars with drop doors—Bethlehem Steel Company.
100 50-ton twin hopper coal cars—Bethlehem Steel Company.

The inquiry for this equipment was reported in the *Railway Age* of May 24.

PASSENGER CARS

THE NASHVILLE, CHATTANOOGA & ST. LOUIS has purchased 10 used parlor cars from the Pullman Company and will convert them into day coaches.

THE ERIE has ordered seven 70-ft. baggage-express cars from the American Car & Foundry Co. An inquiry for five cars of this type was reported in the *Railway Age* of April 19.

SIGNALING

THE LOUISVILLE & NASHVILLE has placed an order with the Union Switch & Signal Company for the major items of signaling equipment required for the installation of centralized traffic control on a 92-mile section of single track between Brentwood, Tenn., and Athens, Ala.

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A MINOR STEP IN [redacted] CONSTRUCTION

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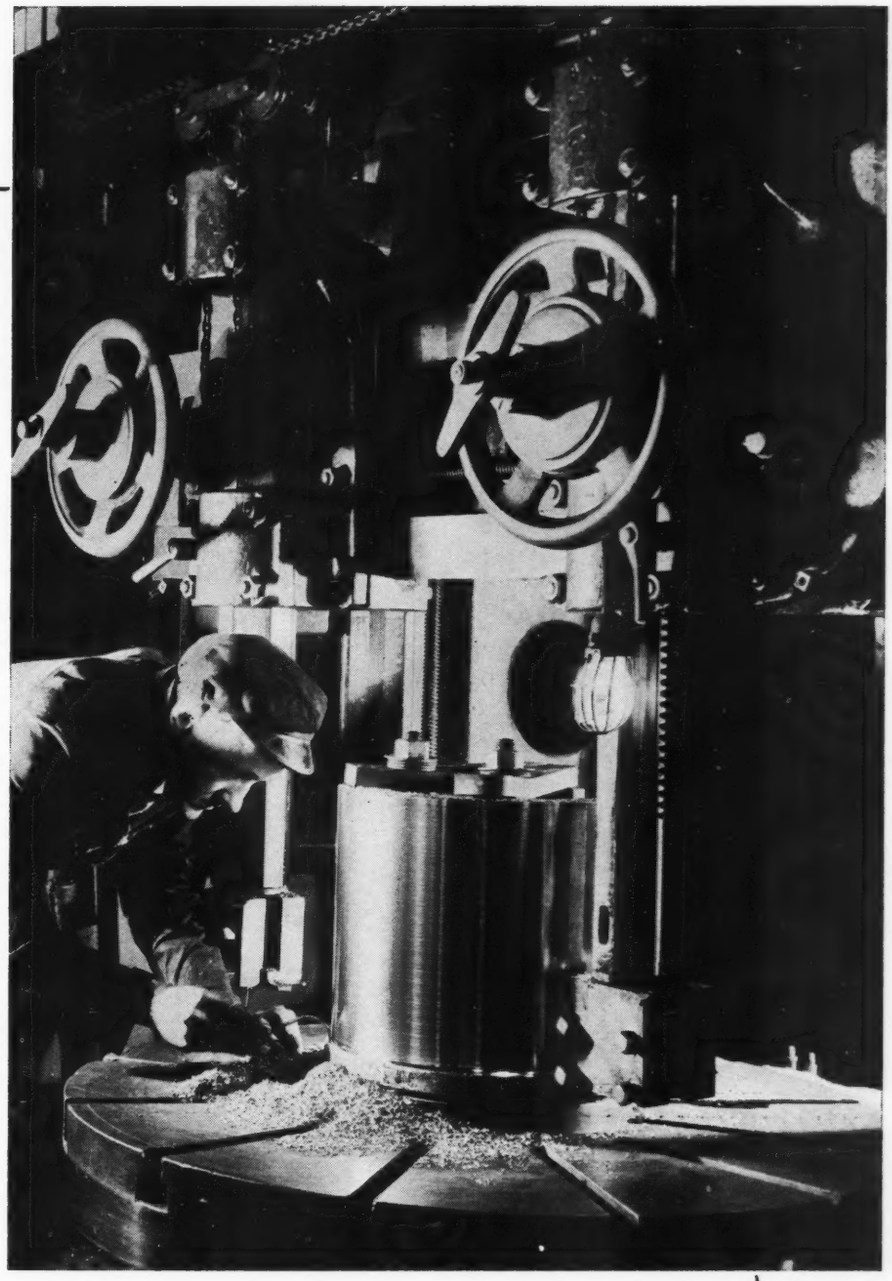
YET A MAJOR FACTOR IN LOCOMOTIVE PERFORMANCE



The turning-down of the brasses of a locomotive is only a minor step in the overall construction. Yet if the proper care and attention to tolerances and specifications are not rigidly adhered to serious consequences may result. That is why each detail of locomotive construction, no matter how small it may be when compared with the finished locomotive, must reach "Lima Standards." The view above illustrates one of the operations that have earned for Lima its reputation as a builder of locomotives high in availability and low in maintenance.

LIMA LOCOMOTIVE WORKS LIMA LOCOMOTIVE WORKS INCORPORATED INCORPORATED, LIMA, OHIO

Construction

ATCHISON, TOPEKA & SANTA FE.—A contract has been awarded the Ellington-Miller Company, Chicago, for the construction of additional facilities in the 18th Street yard at Chicago, as follows: Fuel oil facilities for steam locomotives, Diesel oil facilities for Diesel locomotives, engine washing platforms, drain lines, concrete platforms in the coach yard and two repair pits at the Diesel shop. The contract for the electrical work in connection with these facilities was awarded to the Super Electric Construction Company, Chicago. The total cost of the work will be approximately $200,000.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—W. P. A. crews have started clearing rights-of-way for 50 miles of railroad and 100 miles of truck roads to serve the naval arsenal under construction in Martin County, Ind., by the Navy Bureau of Shipyards and Docks, according to the weekly bulletin of the Works Progress Administration. The railroad trackage will connect with the tracks of the Chicago, Milwaukee, St. Paul & Pacific.

MISSOURI PACIFIC.—This road plans to construct a new passenger station at Piedmont, Mo., to rebuild the station at Alexandria, La., and to install an escalator in the Tower Grove, Mo., station. The Piedmont station will be 25 ft. by 59 ft., built of red granite from nearby quarries, and has been planned with a colonial motif. The station at Alexandria will be considerably enlarged because of the increased passenger traffic from three large army centers nearby. It will also be modernized and redecorated, using new materials to cover the walls, floors and ceiling. The escalator to be installed at Tower Grove will have a length of 53 ft. and a vertical lift of 21 ft. It will be operated automatically by two electric eyes, one at each end, which will cause the escalator to operate for three minutes, whenever the beam is intercepted.

NEW YORK CENTRAL.—This company has awarded a contract to the Duffy Construction Corporation of New York for alterations to the St. John's Park freight terminal, New York.

NEW YORK, NEW HAVEN & HARTFORD.—This company has awarded a contract to the Wilson and English Construction Company of New York for construction of additional freight facilities on the Harlem river, New York, at estimated cost of $175,000.

NORFOLK & WESTERN.—This company has been authorized by Division 4 of the Interstate Commerce Commission to construct and operate a line of railroad extending generally westward from Nolan, W. Va., 3.8 miles.

TEXAS & PACIFIC.—The Texas Highway Department has awarded a contract amounting to $173,349 to the Austin Bridge & Road Co., Dallas, Tex., for an underpass for U. S. Highway No. 80 to be constructed under the Texas & Pacific east of Terrell, Tex. The railroad bridge will consist of two 59-ft. I-beam spans with a waterproofed concrete slab deck on spread footing type reinforced concrete abutments and pier. The bridge will provide for two 30-ft. 6-in. highway lanes beneath, with a vertical clearance of 14 ft. 6 in. The total cost of the project, including work to be performed by the railroad company will be approximately $199,360.

Supply Trade

V. P. Rumely, works manager of the Chicago plant of the **Crane Company,** Chicago, has been elected vice-president in charge of manufacturing.

OBITUARY

Harry S. Hart, president of the Rodger Ballast Car Company, Chicago, died in that city on May 27.

Erroll W. Brandenstein, head of the electrification section in the transportation engineering department of the General Electric Company at Erie, Pa., died suddenly May 20 at his home in Lawrence, Pa. He was 45 years old. Mr. Brandenstein had spent 17 years in the development and application of railroad electrification. He went on the test course with the General Electric Company in 1923 immediately following his graduation from Union College. In June, 1924, he entered the railway control engineering department

Erroll W. Brandenstein

in Schenectady, N. Y. Two years later he transferred to the railway motor engineering department at Erie and later spent six months in the locomotive engineering department. In October, 1927, he transferred to the transportation engineering department where his first assignment was the development and application of electric equipment for gas-electric rail cars which at that time were finding extensive use in light passenger service. In 1929 he became actively engaged in the Pennsylvania electrification and in 1931 was made responsible for the General Electric Company's participation in the entire electrification project. Mr. Brandenstein had been head of the electrification section of the transportation engineering department since 1940.

Financial

ATLANTIC COAST LINE.—*New Director.*—R. J. Doss, recently appointed general traffic manager of this road, with headquarters at Wilmington, N. C., succeeding the late J. B. Brantly, has been elected a director of this road to succeed the latter.

ATLANTIC COAST LINE. — *Equipment Trust Certificates.* — This company has asked the Interstate Commerce Commission for authority to assume liability for $7,880,000 of equipment trust certificates, maturing in 10 equal annual installments of $788,000 on July 1 in each of the years from 1942 to 1951, inclusive. The proceeds will be used as part of the purchase price of new equipment costing a total of $8,762,000 and consisting of 1,600 all-steel, wood-lined, single door, 50-ton box cars; 700 all-steel, wood-lined, 50-ton automobile box cars; 300 all-steel, wood-lined, 50-ton furniture-automobile box cars; 200 all-steel, wood floor, high side, 50-ton gondola cars; and 100 all-steel, 70-ton phosphate cars.

Abandonment.—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon a branch line extending from Conway, S. C., to Aynor, 14.8 miles.

BELLEFONTE CENTRAL. — *Note.* — This company has been authorized by Division 4 of the Interstate Commerce Commission to issue a non-interest-bearing three-year, unsecured promissory note for $125,000, to be delivered to the Pennsylvania in payment of freight and interchange balances.

CHESAPEAKE & OHIO.—*Equipment Trust Certificates.*—This company has asked the Interstate Commerce Commission for authority to assume liability for $3,100,000 of equipment trust certificates, bearing interest at not more than 2½ per cent and maturing in 10 equal annual installments on June 15 in each of the years from 1942 to 1951, inclusive. The proceeds will be used as part of the purchase price of new equipment costing a total of $3,961,339 and consisting of 10 class H-8 freight locomotives of the 2-6-6-6 type with 25,000 gallon tenders; eight class L-2 passenger locomotives of the 4-6-4 type with 21,000 gallon tenders; and two class J-3-A passenger locomotives of the 4-8-4 type with 22,000 gallon tenders.

CHICAGO & EASTERN ILLINOIS.—*New director.*—Carrol M. Shanks, vice-president and general solicitor of the Prudential Insurance Company, has been elected a director of this road, succeeding E. J. Conroy.

CHICAGO, INDIANAPOLIS & LOUISVILLE.—*Ratification of Co-trustee.*—Division 4 of the Interstate Commerce Commission has ratified the appointment of L. F. DeRamus as co-trustee of this company during reorganization proceedings under section 77 of the Bankruptcy Act.

CHICAGO, BURLINGTON & QUINCY.—*Abandonment.*—This company has asked the Interstate Commerce Commission for authority to abandon and take up a branch line extending from Sterling, Colo., to Cheyenne, Wyo., 105 miles. The petition states that the company incurred a loss of

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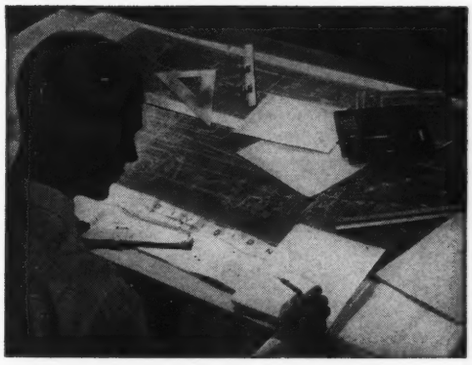

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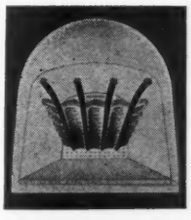
It simplifies the application of the brick arch and saves the stores department a vast amount of trouble.

This foresight of the American Arch Company in adhering to standards is but one of the many ways in which the American Arch Company is serving the railroads.



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some $500,000 in the operation of the line between 1936 and 1940. It is also pointed out that there is sufficient transportation in the area served by the line, and the company feels that it will save $122,294 a year by the abandonment of the operation.

DENVER & RIO GRANDE WESTERN.—*Annual Report.*—The 1940 annual report for this company shows net deficit, after interest and other charges, of $3,070,486, compared with a net deficit of $3,957,329 in 1939. Selected items from the income statement follow:

	1940	Increase or Decrease Compared with 1939
RAILWAY OPERATING REVENUES	$26,219,196	$1,146,156
Maintenance of way and structures	3,238,368	−290,049
Maintenance of equipment	5,921,034	−27,771
Transportation	9,342,399	+357,161
TOTAL OPERATING EXPENSES	20,478,871	+215,510
Operating ratio	78.11	−2.71
NET REVENUE FROM OPERATIONS	5,740,324	+930,646
Railway tax accruals	2,246,045	+18,835
Hire of equipment —Net Dr.	430,843	−166,737
Joint facility rents —Net Dr.	302,279	−16,492
NET RAILWAY OPERATING INCOME	2,761,157	+1,095,041
Other income—Net Dr.	114,071	−171,628
AVAILABLE FOR INTEREST	2,647,086	+923,413
Interest on funded debt	*5,717,572	+36,570
NET DEFICIT	$3,070,486	−$886,843

* Includes interest on underlying bonds matured unpaid: 1940, $2,259,790; 1939, $1,955,990.

ERIE. — *Equipment Trust Certificates.* — This company has been authorized by Division 4 of the Interstate Commerce Commission to assume liability for $4,000,000 of 1⅞ per cent equipment trust certificates, maturing in 10 equal annual installments of $400,000 on May 15 in each of the years from 1942 to 1951, inclusive. The issue has been sold at 100.064 to a group composed of Lazard Freres & Co.; Kidder, Peabody & Co.; Union Securities Corporation; and Harris, Hall & Co., making the average annual cost to the company 1.862 per cent.

ERIE. — *Reorganization.* — Division 4 of the Interstate Commerce Commission has certified to the United States District Court for the northern district of Ohio, eastern division, that an overwhelming majority of the creditors and stockholders entitled to vote on the acceptance or rejection of the commission's final plan of reorganization for this company under section 77 of the Bankruptcy Act, have voted to accept it. The plan now goes to the court for its acceptance or rejection.

MINNEAPOLIS, NORTHFIELD & SOUTHERN. —*Bonds.*—This company has asked the Interstate Commerce Commission for authority to extend the maturity date of $525,000 of six per cent, first mortgage gold bonds maturing September 1, 1941, for 15 years, the interest to be reduced to five per cent with a sinking fund provision which will wholly retire the issue as extended. The company will offer a premium of one per cent, or $5 for each $500 bond, if holders will present their bonds for extension on or before July 15, 1941. It will also pay the interest due on September 1, immediately upon presentation.

LOUISVILLE & NASHVILLE.—*Equipment Trust Certificates.*—The Central Hanover Bank & Trust Co., New York, was awarded, on May 27, a $4,970,000 issue of 1⅝ per cent equipment trust certificates of this road, on a bid of 100.0777. The issue matures in ten equal annual installments. The transaction followed competitive bidding in which two commercial banks, including the purchaser, participated.

MISSOURI PACIFIC.—*Lease of the Chester & Mount Vernon.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to lease the properties of the Chester & Mount Vernon. The Missouri Pacific owns all of the first mortgage six per cent bonds and the entire capital stock of the Chester & Mount Vernon.

MISSOURI PACIFIC. — *Equipment Trust Certificates.*—Salomon Brothers & Hutzler and associates were awarded, on May 21, an issue of $2,895,000 of equipment trust certificates of this road maturing in from one to 15 years, on a bid of 101.069 for 2¼s, representing an interest cost to the road of 2.11 per cent. These certificates were immediately re-offered to the public at prices to yield 0.40 to 2.45 per cent, according to maturity.

MISSOURI PACIFIC. — *Annual Report.*— The 1940 annual report of this road shows net deficit, after interest and other charges, of $9,564,457, a decrease of $3,528,806 as compared with net deficit in 1939. Selected items from the income account follow:

	1940	Increase or Decrease Compared with 1939
Average mileage operated	7,148	−11.15
RAILWAY OPERATING REVENUES	$87,124,190	+$4,064,828
Maintenance of way	13,034,507	+140,471
Maintenance of equipment	16,429,623	−4,478
Transportation—rail	31,628,862	+1,273,862
TOTAL OPERATING EXPENSES	67,087,679	+1,561,398
NET REVENUE FROM OPERATIONS	20,036,511	+2,503,430
Railway tax accruals	5,718,652	+63,540
Railway operating income	14,317,859	+2,439,890
Net rents payable	4,234,841	−447,138
NET RAILWAY OPERATING INCOME	10,083,018	+2,887,029
Other income	1,305,393	+574,310
TOTAL INCOME	11,388,411	+3,461,339
Rent for leased roads and equipment	113,575	−24,140
Interest on funded debt	19,350,209	−25,757
TOTAL FIXED CHARGES	20,863,816	−40,456
NET DEFICIT	$9,564,457	−3,528,806

NEW YORK, CHICAGO & ST. LOUIS.—*Equipment Trust Certificates.*—This company has asked the Interstate Commerce Commission for authority to assume liability for $1,250,000 of equipment trust certificates, bearing interest at not more than 2½ per cent and maturing in 10 equal annual installments of $125,000 on June 15 in each of the years from 1942 to 1951, inclusive. The proceeds will be used as part of the purchase price of new equipment costing a total of $1,463,275 and consisting of 18 70-ton covered hopper cars and 500 50-ton, 40 ft. 6 in., all-steel box cars.

NEVADA CENTRAL.—*Deficit Status.*—Division 4 of the Interstate Commerce Commission has found that the amount payable to this company under the provisions of section 204 of the Transportation Act of 1920, as amended, is $17,072, from which no amount is deductible as due to the President, as operator of transportation systems under federal control, on account of traffic balances or other indebtedness.

NORFOLK SOUTHERN.—*Annual Report.*— The 1940 annual report of this road shows net deficit, after interest and other charges, of $465,546, an increase of $112,283 as compared with net deficit in 1939. Selected items from the combined Corporate and Receivers income account follow:

	1940	Increase or Decrease Compared with 1939
RAILWAY OPERATING REVENUES	$4,559,234	−$67,727
Maintenance of way and structures	841,154	−23,285
Maintenance of equipment	634,104	+2,984
Transportation	1,659,350	−31,603
TOTAL OPERATING EXPENSES	3,688,822	+28,384
Operating ratio	80.93	+1.76
NET REVENUE FROM OPERATIONS	870,425	−96,004
Railway tax accruals	397,518	+8,029
Railway operating income	472,907	−104,033
Hire of equipment —Net	216,744	+8,406
Joint facility rents—Net	8,558	+9,110
Total other income	185,892	+5,505
GROSS INCOME	433,496	−97,823
Rent for leased roads and equipment	65,000	.....
Interest on funded debt	808,973	+13,643
TOTAL DEDUCTIONS FROM GROSS INCOME	899,042	+14,459
NET DEFICIT	$465,546	+$112,283

PENNSYLVANIA. — *Abandonment.* — This company has asked the Interstate Commerce Commission for authority to abandon its Essler branch, extending from a connection with its Lyons Run branch near Saunders to the end of the line, 2.7 miles.

PERE MARQUETTE.—*Equipment Trust Certificates.*—Lazard Freres & Co. and Kidder, Peabody & Co. were awarded, on May 27, an issue of $2,775,000 2⅛ per cent equipment trust certificates of 1941 of this road, on a bid of 100.233, representing an interest cost to the road of 2.09. The certificates, which mature June 1, 1942 to 1956, inclusive, were immediately re-offered at prices to yield 0.35 to 2.45 per cent, according to maturity.

PERE MARQUETTE. — *Equipment Trust Certificates.*—This company has asked the Interstate Commerce Commission for authority to assume liability for $2,775,000 of equipment trust certificates, bearing interest at not more than 2½ per cent and

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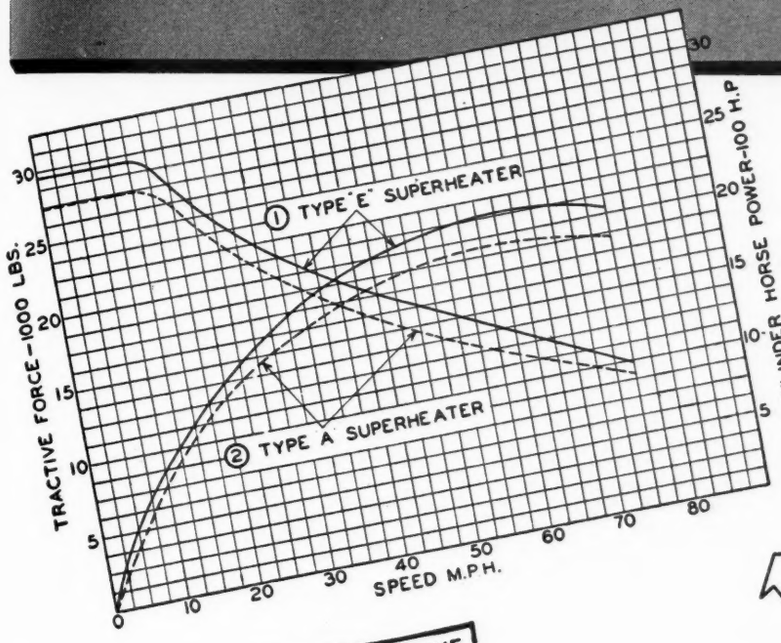
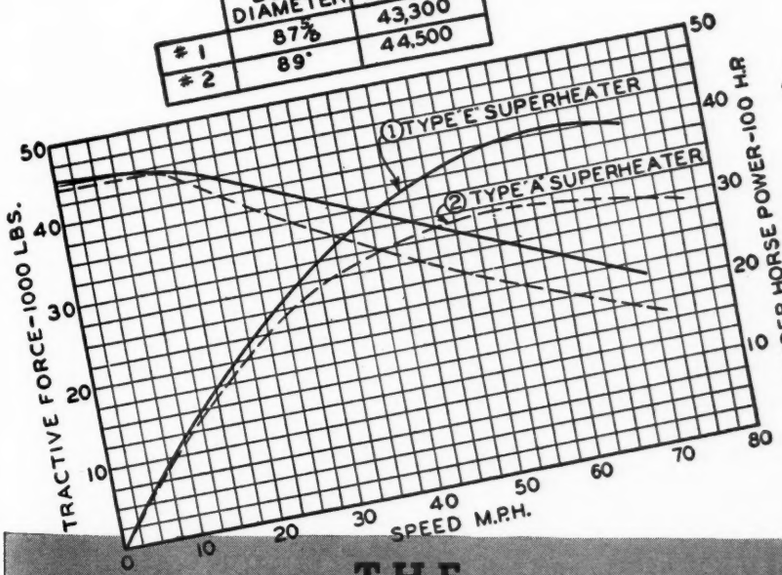
THE SUPERHEATER

AS A FACTOR IN LOCOMOTIVE DESIGN



	BOILER DIAMETER	TRACTIVE FORCE
#1	87⅜	43,300
#2	89"	44,500



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TON MILES PER HOUR

This requires a locomotive delivering highest sustained tractive effort at high speeds, within clearance and weight limits.

The curves illustrate the comparative tractive effort and horsepower capacity of locomotives during actual road tests.

Figure No. 1 indicates the results of a test of identical locomotives, differing only in the type of superheater.

Figure No. 2 shows comparative tests of two locomotives with practically the same boiler diameter and tractive power.

The great improvement shown in tractive effort and sustained horsepower at high speeds with the Elesco type "E" superheater-equipped locomotive, is typical of type "E" performance.

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maturing in 15 equal annual installments of $185,000 on June 1 in each of the years from 1942 to 1956, inclusive. The proceeds will be used as part of the purchase price of new equipment costing a total of $3,513,761 and consisting of 300 50-ton, all-steel box cars; 100 40-ton, all-steel automobile-furniture box cars; 25 50-ton, all-steel automobile box cars; 75 50-ton, all-steel, single door automobile box cars; 25 70-ton, all-steel covered hopper cars; 40 30-ton, all-steel caboose cars; and 12 class N-1 freight locomotives, type 2-8-4 with 22,000 gallon tenders.

PERE MARQUETTE.—*Annual Report.*—The 1940 annual report for this company shows net income, after interest and other charges, of $1,253,067, compared with a net income of $328,156 in 1939. Selected items from the income statement follow:

	1940	Increase or Decrease Compared with 1939
RAILWAY OPERATING REVENUES	$33,007,016	+$2,774,377
Maintenance of way and structures	4,353,333	+338,236
Maintenance of equipment	6,552,836	+279,020
Transportation	12,094,252	+822,944
TOTAL OPERATING EXPENSES	24,939,823	+1,461,064
Operating ratio—per cent	75.56	−2.10
NET REVENUE FROM OPERATIONS	8,067,193	+1,313,313
Railway tax accruals	2,408,698	+433,285
Railway operating income	5,658,495	+880,028
Equipment rents—Net	1,018,264	+127,648
Joint facility rents—Net	577,023	+41,258
NET RAILWAY OPERATING INCOME	4,063,208	+711,123
Total other income	539,180	+178,617
TOTAL INCOME	4,602,388	+889,740
Rent for leased roads and equipment	66,559	−1,040
Interest on debt	3,204,661	−35,351
NET INCOME	$1,253,067	+924,911
Disposition of net income: Income applied to sinking and other reserve funds	1,150	.....
Income balance transferred to profit and loss	$1,251,917	+$924,911

ST. LOUIS, TROY & EASTERN.—*Deficit Status.*—Division 4 of the Interstate Commerce Commission has found that this company did not sustain a decrease in its net railway operating income while under private operation in the Federal control period and is not entitled to the benefits of section 204 of the Transportation Act of 1920, as amended January 7, 1941. As a result of the finding Division 4 has dismissed the carrier's claim.

SOUTHERN. — *Equipment Trust Certificates.*—This road has invited bids by June 3 on an issue of $11,250,000 of equipment trust certificates due in one to 10 years.

SOUTHERN.—*Equipment Trust Certificates.*—This company has asked the Interstate Commerce Commission for authority to assume liability for $11,250,000 of equipment trust certificates, maturing in 10 equal annual installments of $1,125,000 on July 1 in each of the years from 1942 to 1951, inclusive. The proceeds will be used as a part of the purchase price of new equipment costing a total of $12,517,000 and consisting of 3,400 box cars, 500 flat cars, 100 gondola cars, five Diesel-electric switch engines, and 25 baggage-express cars.

SOUTHERN PACIFIC. — *Abandonment by the Northwestern Pacific.*—The Northwestern Pacific has asked the Interstate Commerce Commission for authority to abandon a part of its Sonoma branch, extending from Glen Ellen, Calif., to Los Guilicos, 6.3 miles.

SOUTHERN PACIFIC.—*Equipment Trust Certificates.*—The First Boston Corporation and associates were awarded a $14,625,000 issue of equipment trust certificates of this road on May 22 on a bid of 99.568 for 2¼s, representing an interest cost to the carrier of approximately 2.31. The issue was re-offered at prices to yield 0.40 to 2.65 per cent, according to maturity.

TENNESSEE CENTRAL.—*R. F. C. Loan.*—This company has asked the Interstate Commerce Commission to approve a plan whereby it would borrow from the Reconstruction Finance Corporation $180,000 for a period ending not later than April 1, 1950. As collateral for the loan, the company would pledge $200,000 of its first mortgage four per cent bonds.

TEXAS & PACIFIC.—*Pledge of Bonds.*—This company has asked the Interstate Commerce Commission for authority to extend the time within which it may pledge and repledge $10,000,000 of its general and refunding mortgage five per cent bonds, from June 30, 1941, to June 30, 1943.

WABASH.—*New Director.*—Augustus E. Staley, Jr., president of the A. E. Staley Manufacturing Company, Decatur, Ill., has been elected a director of the Wabash to fill a vacancy on the board.

WHEELING & LAKE ERIE.—*Equipment Trust Certificates.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to assume liability for $800,000 of 1½ per cent equipment trust certificates, maturing in 10 equal annual installments of $80,000 on May 15 in each of the years from 1942 to 1951, inclusive. The issue has been sold at 100.112 to Harriman Ripley & Co., Inc., making the average annual cost to the company approximately 1.48 per cent.

Dividends Declared

Atlanta, Birmingham & Coast.—5 Per Cent Preferred, $2.50, semi-annually, payable July 1 to holders of record June 12.

Boston & Albany.—$2.50, payable June 30 to holders of record May 31.

Chesapeake & Ohio.—Common, 75¢, quarterly; 4 Per Cent Non Cumulative Series A Preferred, $1.00, both payable July 1 to holders of record June 6.

Elmira & Williamsport.—7 Per Cent Preferred, $1.60, semi-annually, payable July 1 to holders of record June 20.

Portland & Ogdensburg.—Guaranteed, 38¢, payable May 31 to holders of record May 20.

Union Pacific.—$1.50, payable July 1 to holders of record June 2.

Average Prices of Stocks and Bonds

	May 27	Last week	Last year
Average price of 20 representative railway stocks..	28.36	28.72	24.40
Average price of 20 representative railway bonds..	64.29	64.96	51.81

Railway Officers

EXECUTIVE

William E. Navin, general freight agent of the Rutland, with headquarters at Rutland, Vt., has been appointed receiver of the road, effective June 1, to succeed **Luis G. Morphy,** who has been appointed district engineer on the New York Central in Boston & Albany territory, with headquarters at Boston, Mass. Mr. Morphy was born on December 4, 1876, at Orizaba, Vera Cruz, Mexico, and was educated by private tutors and in the public schools of Mexico. He received his bachelor of science degree from Spring Hill College, Mobile, Ala., in 1897 and also attended Rensselaer Polytechnic Institute, Troy, N. Y. Mr. Morphy entered railway service in 1900 as transitman with the New York Central, serving successively as supervisor of track, assistant engineer, resident engineer and assistant to principal assistant engineer. In 1907 Mr. Morphy became assistant engineer maintenance of way and construction of the Boston & Albany, then serving as assistant to chief engineer, designing and division engineer and principal assistant engineer, consecutively. In 1920 he became manager in South America of the Foundation Company of New York. From 1921 to 1926 he served as chief engineer of the Rutland, becoming general superintendent and chief engineer in 1926. On December 15, 1937, Mr. Morphy was appointed general manager and chief engineer, the positions he held until his appointment as receiver of the road in July, 1938.

Luis G. Morphy

FINANCIAL, LEGAL AND ACCOUNTING

George L. Seibert, freight claim agent for the Great Northern at Seattle, Wash., died at his home in that city on May 20, after a long illness. Mr. Seibert was born at St. Paul, Minn., on November 25, 1874, and entered railway service in 1889, as an office boy in the freight claim department of the Great Northern at St. Paul, later serving in various positions in that depart-

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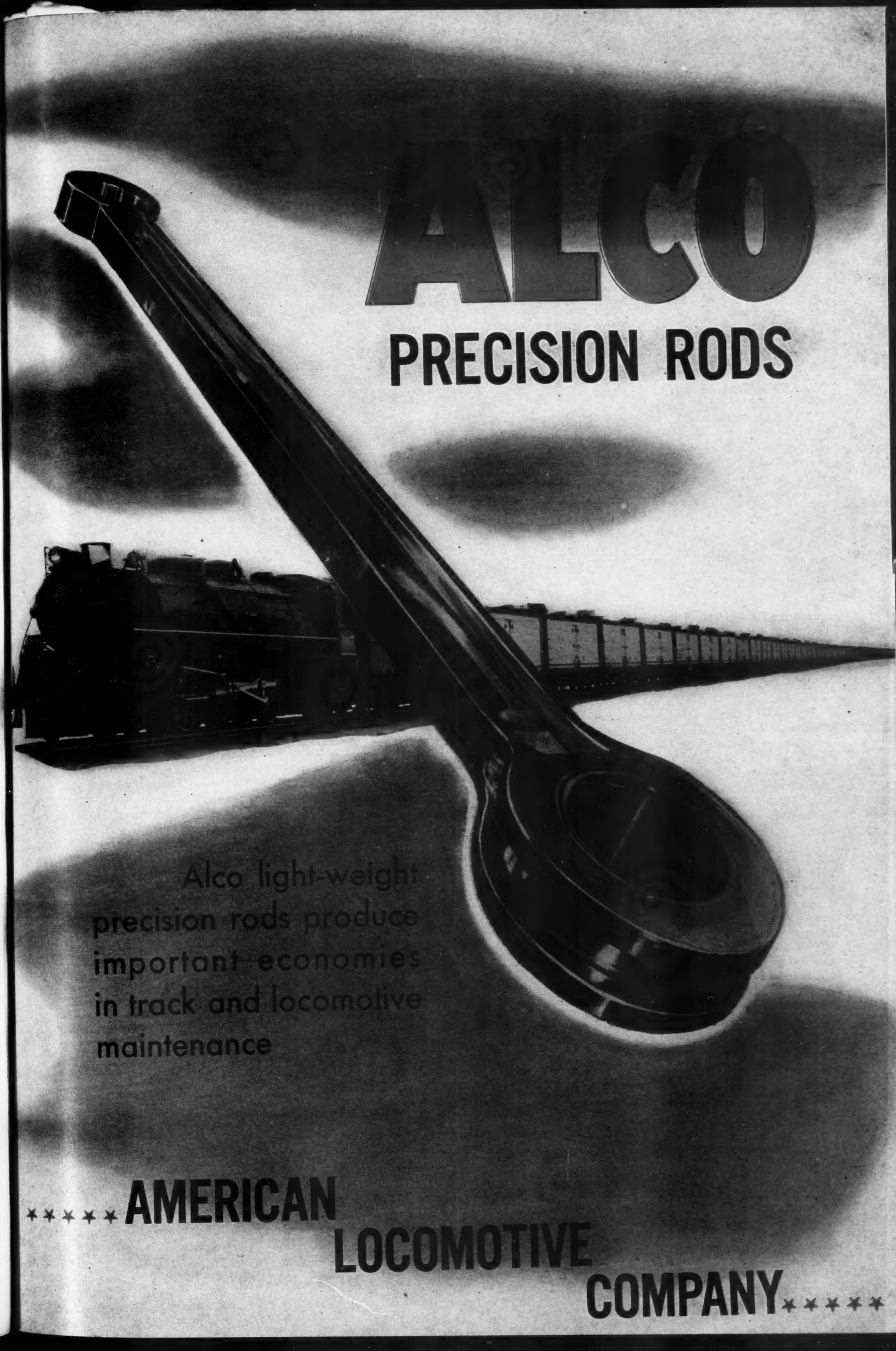
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ment. On September 15, 1902, he was advanced to assistant freight claim agent at Seattle and in 1919 he was promoted to freight claim agent, with the same headquarters, the position he held until his retirement.

Charles A. Rausch, assistant to president of the Balimore & Ohio, has been appointed assistant secretary of the company, with headquarters at Baltimore, Md., effective June 1.

L. F. Dickinson has been appointed freight claim agent of the Denver & Rio Grande Western, with headquarters at Denver, Colo., succeeding **J. H. Miller,** who will retire on June 1.

A. C. Middleton, assistant general auditor on the Chicago, Rock Island & Pacific, has been promoted to general auditor, with headquarters as before at Chicago, succeeding **William Henry Burns,** whose death on May 20 was reported in the *Railway Age* of May 24.

R. C. Arnoll, purchasing agent for the Rutland, with headquarters at Rutland, Vt., has been appointed also treasurer for receiver, succeeding **R. P. Ahrens. M. S. Gooding** has been appointed assistant treasurer for receiver, succeeding **G. H. Howe** and **R. H. Mansfield,** resigned. The office of treasurer for receiver will be transferred from New York to Rutland as of June 1. On and after June 1 all vouchers should be remitted to Mr. Arnoll and all drafts for accounts so settled should be drawn on him through the Clement National Bank, Rutland.

Frank R. Latimer, whose promotion to auditor of the Texas & Pacific, with headquarters at Dallas, Tex., was announced in the *Railway Age* of May 17, was born at Clarendon, Tex., on October 21, 1890, and entered railway service on April 13, 1906, on the Chicago, Rock Island & Gulf (subsidiary of the Chicago, Rock Island & Pacific in Texas) at Dalhart, Tex. During the next five years he served in station service on various railroads and on July 1, 1911, he became a clerk in the office of the auditor of the El Paso & Southwestern (now part of the Southern Pacific) at El Paso, Tex. On November 5, 1916, Mr. Latimer went with the Texas & Pacific as a clerk at Dallas and served in various capacities in the disbursement and general accounting departments, including the positions of chief voucher clerk, joint facility examiner, general accountant and chief clerk to the auditor of disbursements. On August 1, 1923, he was promoted to auditor of disbursements and on March 18, 1936, he was advanced to assistant auditor, the position he held until his recent promotion.

E. C. Miller, chief claim adjuster for the Gulf, Colorado & Santa Fe at Galveston, Tex., has been promoted to general claim agent, with the same headquarters, succeeding **John S. Douglass,** who has retired.

Mr. Miller was born on a farm near Pendleton, Tex., and attended Baylor University. He entered railway service in 1903, in the special service department of the Santa Fe at Temple, Tex., and was transferred to the superintendent's office in 1911. In 1912 he was appointed division claim agent at Beaumont, Tex., and a year later he returned to Temple as division claim agent. Mr. Miller was appointed chief claim adjuster at Galveston, in 1915, the position he held until his recent promotion.

E. C. Miller

Mr. Douglass was born at Covington, Tex., on March 28, 1876, and graduated from the University of Texas in 1901. He entered railway service in 1906 as a local attorney for the Missouri-Kansas-Texas at Hillsboro, Tex., and in April, 1908, he went with the G. C. & S. F. as a claim adjuster at Cleburne, Tex. In November, 1911, he was promoted to general claim agent, with headquarters at Galveston.

OPERATING

L. W. Powell, road foreman of engines on the Atchison, Topeka & Santa Fe at Topeka, Kan., has been promoted to trainmaster at Emporia, Kan., a newly created position.

T. P. Scully, master mechanic of the Chicago, West Pullman & Southern, has been promoted to superintendent, with headquarters at South Chicago, Ill., succeeding **C. L. West,** who will retire on June 1.

E. G. Eklund, superintendent of motive power and rolling stock of the Rutland, with headquarters at Rutland, Vt., has been appointed also superintendent of the road, succeeding **G. B. Gowen,** retired, effective June 1.

Sebra Evans, general yardmaster on the Illinois Central at St. Louis, Mo., has been promoted to trainmaster of the New Orleans terminal, with headquarters at New Orleans, La., succeeding **J. E. Rogan,** whose promotion to assistant engineer maintenance of way, with headquarters at Chicago, is announced elsewhere in these columns.

J. W. Tucker, assistant superintendent of the Chattanooga and Huntsville divisions of the Nashville, Chattanooga & St. Louis, has been promoted to superintendent of those divisions, with headquarters as before at Chattanooga, Tenn., succeeding **Fred W. Kelsey,** whose death on May 19 is announced elsewhere in these columns. The position of assistant superintendent of the Chattanooga and Huntsville divisions has been abolished.

Raymond D. Shelton, chief dispatcher on the Panhandle & Santa Fe at Slaton, Tex., has been promoted to trainmaster at San Angelo, Tex., succeeding **Leonard M. Olson,** who has been transferred to Slaton, Tex., relieving **Orvis H. Osborn.** Mr. Osborn has been transferred to the Atchison, Topeka & Santa Fe at El Paso, Tex., replacing **John R. Skillen,** whose death on May 10 is reported elsewhere in these columns.

J. J. Dugan, trainmaster on the Western Pacific at Stockton, Cal., has been promoted to superintendent of the Western division with headquarters at Sacramento, Cal., succeeding **J. H. Leary,** who has been granted a six-months' leave of absence. **L. D. Brady,** trainmaster at Portola, Cal., has been transferred to Stockton, replacing Mr. Dugan, and **C. E. McDonald,** trainmaster at Wendover, Utah, has been transferred to Portola, relieving Mr. Brady. **J. F. Lynch,** yardmaster at Elko, Nev., has been promoted to trainmaster at Wendover, succeeding Mr. McDonald.

The jurisdiction of **W. F. Kirk,** general superintendent of transportation of the Missouri Pacific, with headquarters at St. Louis, Mo., has been extended to include the Texas lines of the Missouri Pacific system, and **Leonard A. Gregory,** superintendent of the Palestine-San Antonio divisions, with headquarters at Palestine, Tex., has been appointed assistant general superintendent of transportation, with headquarters at Houston, Tex., a newly created position. Mr. Gregory has been succeeded by **Earl Sullivan,** superintendent of the Southern Kansas and Central divisions, whose transfer to Palestine was reported in the *Railway Age* of May 17.

Mr. Gregory was born at Caddo, Indian Territory, on December 1, 1895, and entered railway service in 1912 in station service on the St. Louis Southwestern. He was subsequently promoted through several positions, becoming successively, chief clerk to the superintendent, secretary to the general manager and chief clerk to the general manager. On February 1, 1919, he went with the International-Great Northern (part of the Missouri Pacific system) as chief clerk to the general manager. In May, 1921, he was promoted to assistant to the general manager, and in March, 1923, he was appointed superintendent of transportation. Mr. Gregory was appointed trainmaster on the Gulf Coast Lines of the Missouri Pacific at De Quincy, La., on September 15, 1926, and on February 1, 1930, he was promoted to assistant superintendent, with the same headquarters. He was further advanced to superintendent on the International-Great Northern, with headquarters at Palestine on February 1, 1939, which position he held until his recent promotion, effective May 10.

George A. Kirley, chief engineer of the Boston & Albany, has been appointed general manager, with headquarters as before at Boston, Mass., succeeding **James L. Truden,** who retired on May 31 under

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LOCOMOTIVE efficiency, fuel consumption and maintenance costs are greatly influenced by the quality of the wearing materials.

The fact that most all of the leading railroads insist upon HUNT-SPILLER *Air Furnace* GUN IRON for the vital parts of their locomotives is highly significant.

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the pension regulations of the company, after more than 51 years of service.

Mr. Truden was born on May 20, 1871, at Pittsfield, Mass., and entered the service of the Boston & Albany on October 14, 1889, as telegraph operator at North Adams Junction, east of Pittsfield. On

James L. Truden

January 7, 1897, he was appointed assistant yardmaster and on February 1, 1900, became night yardmaster, with the same headquarters. On November 1, 1901, he was appointed train dispatcher at Springfield, Mass.; on January 1, 1907, trainmaster, and on November 1, 1907, superintendent at Springfield. Mr. Truden was appointed general superintendent at Boston in February, 1910, the position he held until July, 1939, when he was appointed general manager.

TRAFFIC

W. W. Kremer, general freight agent on the Canadian Pacific, with headquarters at Detroit, Mich., has been transferred to Boston, Mass., succeeding **G. A. MacNamara,** promoted.

P. M. Shoemaker, superintendent freight transportation of the New York, New Haven & Hartford, with headquarters at New Haven, Conn., has been appointed transportation assistant of the Delaware, Lackawanna & Western at New York, with duties to be assigned by the president.

D. C. MacDonald, district freight agent for the Canadian Pacific at St. Louis, Mo., has been promoted to general freight agent, with headquarters at Detroit, Mich., succeeding **W. W. Kremer,** who has been transferred to Boston, Mass. Mr. Kremer relieves **G. A. MacNamara,** who has been transferred to Chicago, replacing **E. L. Cardle,** whose death on May 9 was reported in the *Railway Age* of May 17.

Frank S. Leddy, office assistant to the vice-president in charge of traffic of the New York, New Haven & Hartford, with headquarters at Boston, Mass., has been appointed assistant to general traffic manager, to succeed **James E. McGrath,** who will retire on June 1 at his own request, after more than 46 years of service with that road.

Mr. Leddy was born at West Haven, Conn., in 1900, and began his railroad career in 1917 as stenographer in the office of the district freight representative of the Pennsylvania at New Haven, Conn., where he later became chief clerk. In 1918 he became a member of the joint Pennsylvania-New Haven Embargo Bureau. He transferred to the service of the New Haven as stenographer in the office of the traffic vice-president in August, 1918, and later held the positions of secretary to vice-president and of chief clerk at New Haven. Since 1934 he has been office assistant to vice-president in charge of traffic at Boston.

Mr. McGrath was born at Framingham, Mass., in 1875 and entered the service of the New Haven in 1895 at Boston. During the past 46 years he has served as secretary to freight traffic manager, traveling freight agent, commercial agent, assistant general freight agent, assistant freight traffic manager, and assistant to general traffic manager. He has served the New Haven continuously at Boston except during 1918 and 1919 when he was assigned by the railroad to government service and was appointed assistant chief, Inland Traffic Service, War Department, with headquarters at Washington, D. C.

R. J. Doss, general freight traffic manager of the Atlantic Coast Line, with headquarters at Wilmington, N. C., has been elected general traffic manager of that road, and traffic manager of the Columbia, Newberry & Laurens and the Charleston & Western Carolina, with the same headquarters, succeeding the late **J. B. Brantly.** Mr. Doss was born on March 30, 1884, at Canton, Ga., and was educated at Etowah Institute. He entered railroad service in September, 1900, with the Atlanta, Knoxville & Northern (now part of the Louisville & Nashville,) serving successively as telegraph operator, agent, and in various positions in the traffic department until 1913. From 1913 to 1935, Mr. Doss served in the traffic department of the Atlantic Coast Line, holding consecutively the positions of chief rate clerk, chief clerk in the general freight office at Savannah, Ga., assistant to general freight agent, assistant general freight agent, general freight agent and assistant freight traffic manager. In July, 1935, Mr. Doss was appointed freight traffic manager, with headquarters at Wilmington, the position he held until June, 1940, when he was appointed general freight traffic manager. During the period of federal control (1918-1920) Mr. Doss was attached to the Southern Freight Traffic Committee, United States Railroad Administration, at Atlanta, Ga.

R. J. Doss

ENGINEERING AND SIGNALING

The jurisdiction of **J. W. Pfau,** chief engineer, and **W. A. Murray,** engineer maintenance of way of the New York Central system, has been extended to include the Boston & Albany.

L. E. Gingerich, division engineer on the Pennsylvania, with headquarters at Chicago, has been promoted to division engineer in the office of the chief engineer at Philadelphia, Pa.

Charles E. Hise, principal assistant engineer of the Chicago, St. Paul, Minneapolis & Omaha, has been promoted to assistant chief engineer, with headquarters as before at St. Paul, Minn., and the position of principal assistant engineer has been abolished.

E. H. McGovern, division engineer on the New York Central, with headquarters at Chicago, has been promoted to assistant district engineer, with headquarters at Cincinnati, Ohio, succeeding to the duties of **William Christian Kegler,** engineer of track and roadway of the Cleveland, Cincinnati, Chicago & St. Louis Big Four), whose death on May 6 was announced in the *Railway Age* of May 10. **G. H. Smith,** division engineer at Columbus, Ohio, has been transferred to Chicago, replacing Mr. McGovern, and **C. V. Bucher,** assistant engineer in the office of the division engineer at Cleveland, Ohio, has been promoted to division engineer at Columbus, relieving Mr. Smith. The position of engineer of track and roadway at Cincinnati has been abolished.

C. M. Chumley, district engineer of the Southern lines of the Illinois Central, with headquarters at Memphis, Tenn., has been promoted to engineer maintenance of way of the system, with headquarters at Chicago, succeeding **Lewis H. Bond,** chief engineer maintenance of way, who retired on May 31. **J. E. Rogan,** trainmaster of the New Orleans terminal, has been promoted to assistant engineer maintenance of way, with headquarters at Chicago, and **G. M. O'Rourke,** district engineer of the Northern lines, has been appointed assistant engineer maintenance of way, with headquarters as before at Chicago. The positions of district engineer at Chicago and Memphis have been abolished.

Mr. Chumley was born at Union City, Tenn., on May 21, 1882, and entered railway service on March 16, 1903, in the bridge and building department of the Yazoo & Mississippi Valley (part of the Illinois Central system), at Baton Rouge, La. From February, 1905, to September, 1906, he served as a clerk and storekeeper at Harriston, Miss., then being appointed bridge and building foreman on the New Orleans division of the Y. & M. V. In October, 1907, Mr. Chumley was promoted to general foreman in the

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bridge and building department of the same division, which position he held until December, 1909, when he was made supervisor of bridges and buildings of the Memphis division of the Y. & M. V. with headquarters at Memphis, Tenn. On May

C. M. Chumley

1, 1920, he was promoted to division engineer of the Mississippi division of the Illinois Central, with headquarters at Water Valley, Miss., being transferred to the Louisiana division on June 1, 1921, with headquarters at McComb, Miss. On September 23, 1931, Mr. Chumley was transferred to the Kentucky division with headquarters at Paducah, Ky., and on June 10, 1937, he was promoted to district engineer of the Southern lines, with headquarters at Memphis.

Mr. Bond was born at Louisville, Ky., on November 14, 1879, and graduated from the Du Pont Technical College in 1898. He entered railway service in September, 1899, as a chainman on the Illinois Central, and later served as a rodman and instrumentman until June, 1904, when he was promoted to assistant engineer. He was promoted to supervisor in December, 1905, and in August, 1908, he was reappointed assistant engineer. From June,

Lewis H. Bond

1910, until June, 1917, he served as roadmaster, being promoted to assistant engineer maintenance of way on the latter date. He was appointed district engineer of the Northern district, with headquarters at Chicago, in June, 1919, and was reappointed assistant engineer maintenance of way in January, 1923. In February, 1925, Mr. Bond was promoted to engineer maintenance of way of the system, with headquarters at Chicago, and in August, 1938, his title was changed to chief engineer maintenance of way.

MECHANICAL

J. T. Smith, general foreman on the Panhandle & Santa Fe at Amarillo, Tex., has been appointed master mechanic of the Plains division, with the same headquarters.

PURCHASES AND STORES

R. J. Murphy, storekeeper on the Union Pacific at Omaha, Neb., has been promoted to assistant general storekeeper, with headquarters at Cheyenne, Wyo.

OBITUARY

Harry G. Smith, who retired on May 29, 1940, as general agent, passenger department for the Northern Pacific at Portland, Ore., died of a heart attack at his home in Seaside, Ore., on May 20.

John R. Skillen, trainmaster on the Atchison, Topeka & Santa Fe at El Paso, Tex., died on May 10 from injuries received in an automobile accident two days before.

Robert H. Ford, who retired as chief engineer of the Chicago, Rock Island & Pacific, on September 30, 1939, died at his home in Chicago on May 27, following an illness of several weeks.

Thomas G. Hastie, a former district engineer of the Western district of the Great Northern, with headquarters at Seattle, Wash., died on May 20 at his home in that city after a short illness. Mr. Hastie served as district engineer at Seattle until August, 1925, then being appointed assistant district engineer. A short time later he retired.

Fred W. Kelsey, superintendent of the Chattanooga and Huntsville divisions of the Nashville, Chattanooga & St. Louis, with headquarters at Chattanooga, Tenn., died suddenly at his home in that city on May 19. Mr. Kelsey was born at Lynnville, Tenn., on January 4, 1876, and entered railway service in 1894 as an agent and operator with the Louisville & Nashville, later being promoted to dispatcher and trainmaster. In 1916 he went with the N. C. & L. as assistant superintendent and in 1921 he was promoted to superintendent of the Chattanooga division, with headquarters at Chattanooga. His territory was later extended to include the Huntsville division.

Sam S. Butler, who retired in July, 1940, as assistant chief traffic officer of the St. Louis-San Francisco, with headquarters at St. Louis, Mo., died on May 20 at his home in Murfreesboro, Tenn., where he had been residing since his retirement. Mr. Butler was born in Murfreesboro, on August 25, 1875, and entered railroad service on November 1, 1890, as a clerk in the auditor's office of the Texas & Pacific at Dallas, Tex. He was later made relief agent and traveling auditor, and in 1900 he became clerk to the commercial agent of the Frisco at Dallas, later serving as soliciting freight agent, traveling freight agent and commercial agent at that point. On April 1, 1907, he was promoted to general agent at Fort Smith, Ark., and from 1909 to 1912 he was general eastern agent at New York. In 1912 he was made traffic manager of the Gulf Coast Lines (part of the Missouri Pacific), with headquarters at Houston, Tex., and in 1915 he returned to the Frisco as general southwestern freight agent at Houston. He later served as general agent at Pittsburgh, Pa., was made assistant general freight agent at St. Louis in 1917 and later general freight agent at that point. He was promoted to freight traffic manager in 1920, to general freight traffic manager on March 1, 1928, and to general traffic manager on October 15, 1928. In November, 1934, he was appointed assistant chief traffic officer, the position he held until his retirement.

John Wilbur Dodge, who retired on August 1, 1926, as superintendent of fuel conservation of the Illinois Central system, with headquarters at Chicago, died on May 18 at the Gartly-Ramsay hospital, Memphis, Tenn. Mr. Dodge was born at Lancaster, Wis., on July 29, 1856, and first entered railroad service with the Lehigh Valley. A short time later, in April, 1880, he went with the Illinois Central as a clerk in the office of the superintendent at Centralia, Ill. Three months later he was promoted to chief clerk to the superintendent and in July, 1881, he was transferred to Cairo, Ill. In July, 1882, he accompanied the general manager as secretary during an inventory of the Chicago, St. Louis & New Orleans just prior to its transfer under lease to the Illinois Central, and on his return was promoted to assistant agent at Cairo and later to acting agent and commercial agent at the same point. From July, 1887, to April, 1890, he served as chief clerk to the general superintendent at Chicago, following which he resigned on account of his health, and spent five years on the Pacific coast, four of them as secretary of the Chamber of Commerce of Seattle, Wash. He returned to railway service in January, 1896, as a clerk in the mechanical department at Chicago, where he remained until April, 1897, when he was transferred to Memphis, Tenn., as chief clerk to the superintendent. In July, 1901, he was transferred to Water Valley, Miss., and in July, 1905, he was promoted to supervisor of trains and tracks at Durant, Miss., where he served until October 1908. He then returned to Memphis as chief clerk to the general superintendent and later was transferred to New Orleans. From July, 1911, to May, 1912, he was division superintendent at Vicksburg, Miss., and was then promoted to inspector of transfers at Chicago. In January, 1924, he was appointed to the newly created position of superintendent of fuel conservation, which he held until his retirement. From 1922 to 1925, Mr. Dodge served as the vice-president of the International Railway Fuel Association and as president of the same organization during 1925-1926. Mr. Dodge was one of the early pioneers in railroad fuel conservation work.